

IV.

AN ACCOUNT OF THE EXCAVATION OF THE STONE CIRCLE
 AT LOANHEAD OF DAVIOT, AND OF THE STANDING
 STONES OF CULLERLIE, ECHT, BOTH IN ABERDEEN-
 SHIRE, ON BEHALF OF H.M. OFFICE OF WORKS. BY
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From a study of the various accounts of investigations carried out within stone circles, it will be observed that any complete examination of such a monument can be regarded as a pioneering achievement. Past investigators, if they were scientifically inclined, have contented themselves with a series of trial trenches within the area of the main circle; whilst others, with less laudable ideals, have pillaged the centre to satisfy their own curiosity. By these means many erstwhile impressive monuments have been very nearly extirpated, and their ruin has usually been completed by the wanton farmer in search of a gate-post or a lintel for a doorway. This spectacle of degradation, to which many monuments have been reduced, has encouraged a few thoughtful proprietors to take immediate steps for the preservation of those in their own possession; and through the foresight of their respective owners, the two monuments which form the subject of this report have been placed under the guardianship of the Commissioners of H.M. Works—the former by Col. Seton of Mounie, and the latter by Mr Thomas Innes of Learney, Carrick Pursivant. Both stone circles, therefore, are now under the care of the Ancient Monuments Department; and I was requested by the Inspector, Mr J. S. Richardson, to undertake the immediate supervision of the excavation of both monuments. I should like to record my thanks to the Department for the opportunity thereby afforded me of examining two such complete and interesting monuments. Mr J. P. Bushe-Fox, Chief Inspector of Ancient Monuments, paid a personal visit to both sites, and Mr Richardson visited one of them on two occasions and the other on three, and I am under an obligation to both of them for the suggestions, advice, and encouragement they gave me. I desire also to express my thanks to Mr J. Wilson Paterson, Chief Architect, for having had the Ancient Monuments Department's surveys prepared at such times as suited my convenience; and to the Commissioners of H.M. Works for permission to use these records for this account.

The examination of the human remains from both monuments was kindly undertaken by Professor Alexander Low, Anatomy Department, Aberdeen University; and the charcoal was kindly examined by Dr E. V. Laing, Forestry Department, Aberdeen University.

PART I.

THE STONE CIRCLE AT LOANHEAD OF DAVIOT.

The Loanhead stone circle stands upon a plateau just below the summit of a small hill attaining a height of 531 feet above Ordnance datum, and it is situated roughly 183 yards almost due north of the farm of Loanhead. The site, prior to the planting of the wood now



Fig. 1. Stone Circle at Loanhead of Daviot, Aberdeenshire.

crowning the hill, must have commanded uninterrupted views on all sides excepting the north-west, the summit of the hill proving to be the obstruction on that side. To the north, and half a mile distant, is the stone circle of New Craig, situated upon another hill of equal height; to the west and south are fine views of the Hill of Culsalmond and Benachie, and the valley of the Urie; whilst Old Meldrum lies three and a half miles to the east at the head of the valley of the Lochter Burn. Viewed from any of the surrounding valleys, the hill stands out against the sky in a striking manner. Down the brae to the south-east lies the village of Daviot, about half a mile distant, where, in the kirkyard, there once stood another stone circle, long since despoiled, and finally completely removed by order of a former minister.¹ Almost at the summit of the hill itself is a large outcrop of rock which has been quarried at some remote period, perhaps to supply some of the stone for the circle itself.

The land in the neighbourhood of the stone circle has already yielded

¹ This apparently occurred about the year 1820, *vide* the *New Statistical Account of Scotland*, vol. xii. (Aberdeen) p. 822.

prehistoric remains. In 1817 an urn was found in the farmyard at Loanhead, and several more urns in a nearby field, about 1000 feet distant in a north-easterly direction. To the east of the circle, close by a stone dyke which descends the brae at this point, a "brass dirk" and a stone cist were found in 1832.¹ A "stone ladle" is also said to have been found within the circle itself.²

Apart from these discoveries, other features have been noticed lately. On the occasion of my first visit to the site, Mr Richardson drew attention to the existence of a low bank extending in a south-easterly and a north-westerly direction, and rather closely associated with the stone circle on the eastern arc of the circumference. In addition, there was a curious ring of low stones to the south of the circle, and a mound, apparently of artificial formation, on the west. To the west of this mound I discovered a saucer-like depression this summer, revealed by the removal of grass and raspberry canes; and, following the uprooting of a tree near the middle, no less than fourteen potsherds were recovered, including two rims, and all of Iron Age date: so that the archæological possibilities of the hillside would appear to be almost unlimited. Fortunately, these features are all within the area enclosed by H.M. Office of Works.

For the present, however, we are concerned solely with the stone circle, which stands out impressively against the sky as it is approached through the wood. It is of moderate size, being 64 feet in internal diameter, and it is formed of ten monoliths (five of which were prostrate) and a large Recumbent Stone, situated, in keeping with the general peculiarities of this type of circle, on the southern arc of the circumference. The circle is one described by F. R. Coles, who, in giving it his "careful attention," pronounced it to be the sole example possessing a double recumbent stone.³ Actually, the so-called double recumbent stone really consists of the two halves of a single mass, which has split in twain owing to the presence of a "dry."

Prior to the commencement of work, the stone circle presented rather

¹ These are all recorded on the 6-inch Ordnance Map.

² Three stone cups, probably similar to the "ladle" discovered here, were found in a cairn, presumably of the Bronze Age, at Woodside Croft, Hill of Scares, Culsalmond. See J. Graham Callander, *Proc. Soc. Ant. Scot.*, vol. 1. p. 145.

³ F. R. Coles, "Stone Circles of the North-East of Scotland," *Proc. Soc. Ant. Scot.*, vol. xxxvi. p. 518, and fig. 36. Bishop Browne, *Antiquities in the Neighbourhood of Dunecht*, p. 70, concluded likewise. However, it did not seem to occur to either to make a simple comparison between the two inner faces of the cloven stone, there to see upon one a positive protuberance, whilst upon the other would be a negative equivalent in the shape of a hollow; and throughout the length of the cleft, where any positive feature occurred, its negative counterpart was visible upon the opposite face. Mr Coles' drawing apparently supports his contention; and he states further that he could walk comfortably between the two halves. Reference to fig. 5 will acquaint the reader with the true state of affairs.

a dilapidated appearance, with a large gap left in the circumference by the prostrate monoliths, some of which were almost completely hidden in the growth of grass and weeds; and none of the monoliths showed to a greater height than 5 feet 9 inches.

For the sake of clarity, we begin with a description of the monument at the termination of operations carried out this summer, considering the lower levels first and the higher later.

THE CENTRAL RING CAIRN.

Within the main circle of monoliths lies an Inner Ring enclosing a cairn of large proportions (see Plan, Pl. I., p. 196), the actual diameter of which was 54 feet. In the north and north-west sectors the cairn had been quarried extensively, and, apart from a few isolated earth-fast stones, everything had been removed. There was a considerable accumulation of loose earth in this area, amongst which were a few potsherds, found at varying depths; whilst upon the hard reddish-brown compacted layer, revealed by the removal of this superincumbent earth, many more were found. This pottery, all of Iron Age date and indicated upon the Plan by Nos. 108, 130, 131, 137, 138, 139, 140, 146, 147, 149, 150, 151, 152, 153, 172, 173, had undoubtedly arrived there during the quarrying of the cairn. One probable exception is No. 149. Several rather small sherds of hard, black ware, containing fine grit, were found grouped together within a circle of 9 inches diameter marked out by the presence of black soil which extended to a depth of 1 inch into the subsoil, the level of the latter here being 2 inches below that of the hard compacted layer referred to above. Amongst these sherds were the fragments of three rims, one of which represented the sole piece of decorated ware found throughout the entire excavation (fig. 14, No. 11) excepting, of course, that pottery of the Bronze Age also found within the circle. This circle of black earth had all the appearance of being the filling of a post-hole: although we must not overlook the possibility that it may have been a hole dug to receive the complete vessel, the vessel becoming damaged and broken up by the destroyers of the cairn.

On the south side, what remained of the cairn¹ was in a more or less undisturbed condition, with the exception of two or three very small disturbed areas, apparently the result of former unscientific attempts to discover something. On the east side the cairn ended rather abruptly, and, beyond, disturbance was considerable. Continuing round by the

¹ The cairn probably attained something like the height of those at Clava (James Fraser, "Stone Circles of Strathnairn," *Proc. Soc. Ant. Scot.*, vol. xviii. pp. 340-350). These circles, of course, are of a different period and structure; and our analogy concerns the height of the cairn only.

Inner Ring on the north-east side, however, the stones were found to continue: all were earth-fast, like those of the undisturbed southern sector, and between monoliths Nos. 6 and 5 they reached a greater height, roughly 2 feet above the compacted layer, than elsewhere within the Inner Ring, excepting a small area nearly opposite the East Flanker; but opposite monolith No. 5 they ended abruptly, and the Inner Ring did likewise.

The Inner Ring itself consisted of a number of fairly large stones placed contiguously round the circumference of a circle of diameter 54 feet, to serve as a kerb for preventing the cairn stones from spreading outwards. Of the total number which formerly existed, 53 still remain more or less in position, whilst two lay near the Recumbent Stone (marked FF), torn out of their original positions, another lay prostrate nearly opposite monolith No. 5, whilst a fourth, situated opposite monolith No. 2, had been pulled on to one side to make room for the passage of those who robbed the cairn of its stones. Several potsherds fell into the socket of the last upon its removal (No. 175). A fifth stone lay prostrate to the south of this last one, and underneath there was a small collection of potsherds (No. 237) of Iron Age date, and quite near were two sherds of Beaker ware (Nos. 237', 236). It is perhaps curious that so much pottery should have congregated beneath this stone, and, had there been more of the Iron Age vessel, one might have been tempted to assume that here there had been a burial, since a piece of burnt flint and a few fragments of calcined bone were found along with the potsherds. A fragment of clay mould for casting metal was found nearby: apparently the metal had been bronze, since a small piece of bronze slag was found rather more than 10 feet away in a northerly direction. The biggest of the Inner Ring stones are on the southern semicircle, whilst those which remain of the northern semicircle are of a smaller nature. In this diminution of size they closely follow the scheme expressed by the gradually decreasing size of the main ring of monoliths, a typical feature of most circles of this type. The majority of the stones of the Inner Ring were set upon their sides, and they varied greatly in magnitude, some on the southern semicircle being as much as 4 feet 2 inches long, whilst others, not so long, attained a height of 2 feet 9 inches, diminishing on the northern semicircle to 2 feet 1 inch in length for the longest, and 1 foot 7 inches in height for the highest.

Between monoliths Nos. 8 and 7,¹ and extending as far as No. 6, there was an added declivity in the hillside, and the builders of the circle had taken steps to level this up. A quantity of rubble was thrown down

¹The monoliths are numbered in a clockwise direction, the West Flanker being numbered 1.

here, and then over this was spread a layer of soil, upon which rested the remaining stones of the Inner Ring (see No. 5, fig. 1). No attempt had been made to level the ground outside the Inner Ring.

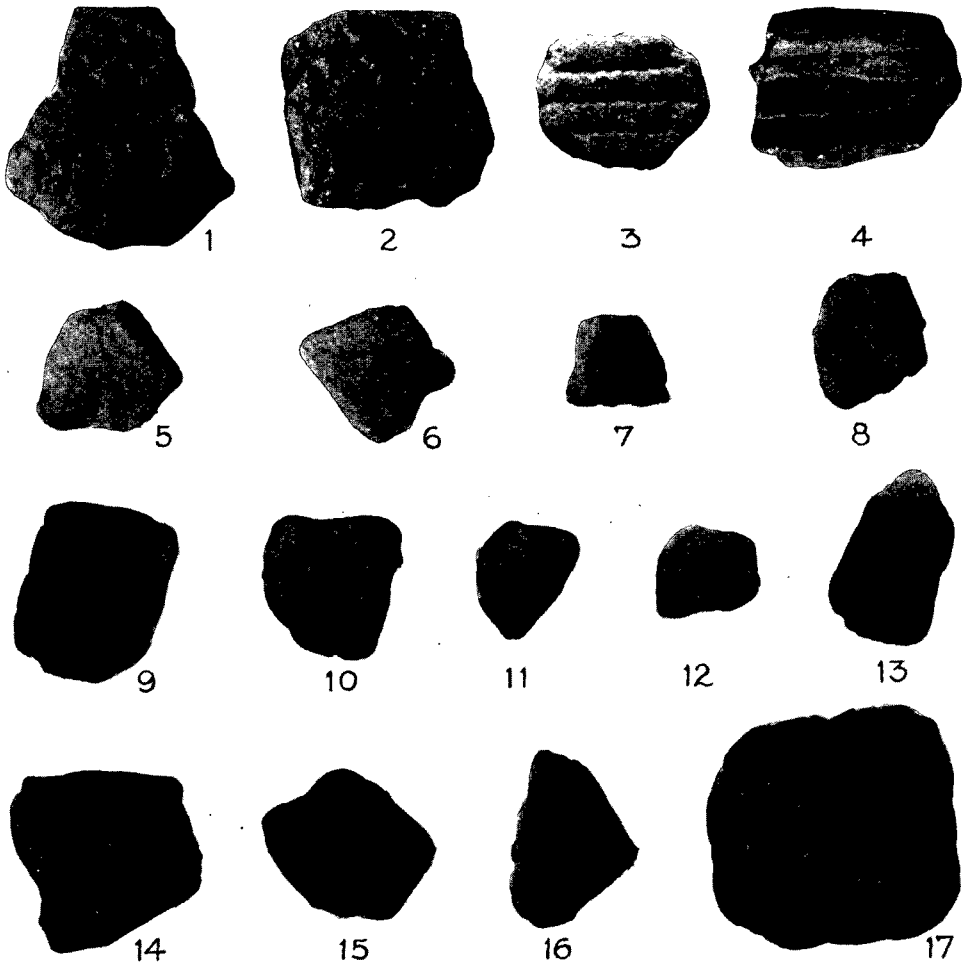


Fig. 2. Beaker Pottery. (†.)

Between monoliths Nos. 4 and 5 several dark patches were discernible against the compacted layer, and when these were cleaned out, they were found to be the fillings of very shallow sockets for some of the

missing Inner Ring stones. Probably these "sockets" had been formed solely by the weight of the stones themselves, since they were hardly ever deeper than a single inch; but they were quite definite, none the less.

The examination of the cairn did not yield much of interest, apart from one structural feature to be noted presently. Most of the stones forming the cairn were so well fixed that they had to be levered out of position: there was a marked variation in their size, some being as much as 2 feet 6 inches long and nearly 2 feet broad, while interposed here and there were areas of very much smaller stones, of about 9 inches long by 6 inches broad. The cairn had been laid upon the hard, reddish-brown compacted layer already noted, so that it must have been the original floor of the circle at the period of its erection. Throughout, the whole area examined was quite undisturbed, and nothing but a few very small potsherds were found. This examination only served to confirm the inference already drawn that the pottery discovered in the disturbed areas of the north and north-west sectors had undoubtedly got there during the removal of the cairn stones when the monument was quarried. As to where the pottery came from is a question not easily answered; but, obviously, any potsherds found in this area can hardly be claimed to serve as a sound argument in the discussion of any question of chronology.

The structural feature discovered during the examination of the cairn, and mentioned above, was a Crescent of stones beginning very nearly due south of the centre and extending in an arc northwards until interrupted by two disturbed areas. It is situated approximately midway between the Inner Ring and the edge of the Centre Pit, to be discussed later: and where it begins on the south side it consists of what might be termed a double line of stones. These suddenly expand into three lines, and then rapidly into four. Unfortunately, what would occur after this is not very clear, owing to someone within the last century having dug a pit here; but on the other side are a few remaining stones, interrupted once more by the general clearance that robbed the cairn of the majority of its stones.

These Crescent stones had all been carefully selected: they were above the average in size, and all presented an orderly appearance lacking elsewhere. Generally they were about 2 feet 3 inches long and 1 foot 6 inches wide, but their height varied greatly, although some attained 2 feet, thereby standing out against and above the cairn stones. The most remarkable feature about them was the curious fact that they were nearly all set on end, thus showing a marked contrast to the cairn stones, which presented the usual irregular appearance typical of such

structures, an aspect which is due to their having been thrown into position instead of having been hand-placed.

Like the stones of the Inner Ring, those forming the Crescent were merely laid upon the compacted floor. Each of the Crescent stones was lifted for examination; and, whereas those forming the double row from the south northwards were found to cover nothing of interest, quite a different story was revealed as soon as they expanded into three rows, and then into four. The first stone of the third row was situated on the edge of a small pit cut into the subsoil, and measuring 1 foot 10 inches long by 1 foot 4 inches broad and 6 inches deep. It was full of light-coloured soil, rather like disturbed subsoil, which, on being cleaned away, yielded a single fragment of calcined bone, a single potsherd, and a single piece of charcoal.

Of more significant interest was the evidence discovered by the lifting of the four rows of Crescent stones. Underneath, instead of the hard, compacted floor, was a black, greasy deposit which adhered to some extent to the stones themselves. This seems to indicate that the stones were placed directly thereon soon after the formation of the black deposit. The black deposit itself consisted of fine charcoal dust, and intermingled with it were numerous fragments of calcined bone, all rather badly crushed. The deposit was scraped away, disclosing underneath a bright red, hard-baked floor, which was merely the original compacted layer subjected to much heat. The area of this burning, which was of the extent of 9 feet long by 6 feet broad, did not extend outside the area covered by the four rows of Crescent stones; and by a stroke of good fortune, the treasure-hunters had dug through the centre of the fireplace only, leaving its edges intact and well defined. The extent to which the floor had been burnt and the presence of the calcined bone draws us to conclude that here had been placed the funeral pyre for cremating the remains of the dead. Moreover, the body, or bodies, had obviously been cremated before the erection of the cairn, and the full significance of this will be realised later when we endeavour to arrive at conclusions as to the period of this happening. It is also obvious that the erection of the cairn took place immediately following the cremation, since the freshness and the adhesiveness of the charcoal dust to the Crescent stones could imply nothing less conclusive.

THE CENTRE PIT.

The limits of the Centre Pit were defined in no uncertain manner. The pit had been formed by scraping away the hard, compacted floor, which here was approximately 3 inches deep, to the subsoil immediately

below. (Everywhere within the circle the subsoil was always discovered at approximately this depth below the level of the compacted floor.) Within the pit there was a number of artificial hollows scooped out of the subsoil. That marked A on the Plan, Pl. II., was an irregular oval depression about 2 inches deep and 2 feet 10 inches long and 1 foot 5 inches broad: that marked B was 2 feet 5 inches long and 1 foot 10 inches broad and of the same depth: C, near the centre, was 4 inches deep, and contained a fragment of beaker rim (No. 202, fig. 2, No. 14): D was a long pit nearly 6 feet long and 2 feet 5 inches broad, 5 inches deep at its



Fig. 3. Centre Ring Cairn and Pit.

west end, but becoming more and more shallow towards the east: E, the biggest and most deliberate of these depressions, possessed well-cut sides, and had been sunk to a total depth of 8 inches, the entire depth of subsoil here: its base, therefore, was formed of the natural bed-rock, and its length was 5 feet and its breadth 2 feet 7 inches: F, whose extent on one side was determined by the edge of the Centre Pit, was hardly less sharply defined, and measured 5 feet 1 inch long by 1 foot 10 inches broad: G and H were two shallow depressions, whilst J, K, L, M were small circular ones of no great depth. A small quantity of Iron Age ware was found upon the subsoil, several sherds including a rim at No. 204, a rim at No. 157, and another at No. 205.

On the south-west side of the pit will be observed a line of stones situated within the edge to a distance of as much as a foot. These stones,

now earth-fast, were all lying immediately upon the subsoil, and their aspect and position made it clear that they had formerly belonged to the cairn, and had slipped down from above. As will be seen from fig. 3, the general level of the cairn stones here is about 9 inches above that of the pit floor: and the space left by the fallen stones can readily be seen on the Plan, Pl. II. A rim (No. 218) of native manufacture, but probably showing Roman influence, was found upon the compacted floor at the place from which these stones had fallen. This fall into the pit is valuable from the chronological point of view. The pit itself was full of dark earth, darker than the superincumbent accumulation of soils cleared away in other parts of the cairn; but the darkest of this earth, in which there was a considerable charcoal content, was found near the bottom. This black earth was never more than 2 inches deep, and at this level the majority of the potsherds marked upon the Plan, Pl. II., were found, in addition to which there were 5 lbs. of calcined (human) bone at the same level, usually occurring in patches throughout the area, except on the south-west and east sides.¹ At the same level was found a fireplace,² indicated by an unusual purple colour and hardening of the black soil, and round about it charcoal was particularly abundant. In addition, it will be observed that the majority of the domestic pottery was found in the vicinity of this fireplace, so that one is tempted to wonder whether this could indicate that the site had been used for domestic purposes, or whether we had not here the remains of a funeral feast. Where sherds of the same pot were found in close proximity to one another, they always gave the impression of having got there through the vessel having been dashed to the ground. But whether the custom was purely funeral or domestic in purpose or otherwise, the pit must have been continually open or re-opened during perhaps three centuries or longer, since the pottery found covered all types from the early Iron Age to the Roman period.

Now, since the pottery, the calcined bone, and the fireplace were all discovered at approximately the same level, we conclude that the pit must have been filled in to this depth (2-3 inches) by people possessing an Iron Age culture. Obviously, the scooped-out hollows in the subsoil were of no interest, and perhaps even a nuisance, so that they were completely covered up; and the soil which was thrown in for this purpose also partly covered the fall of cairn stones we have noted above. This

¹ The two vessels, Nos. 195 and 159 (fig. 10, Nos. 1 and 2) were definitely associated with calcined bone, which seemed to be concentrated in their vicinity; but No. 171 (fig. 10, No. 4), on the other hand, was unassociated with human remains. The first two vessels can therefore be regarded as sepulchral urns.

² The area covered by this fireplace is indicated on the Plan, Pl. II., by the dotted line in the east corner of the pit.

occurrence seems to imply that the Iron Age folk cleaned out the pit beforehand, presuming it to have contained something, and in doing so the stones fell in. In any case, the fall of stone is a certain sign of secondary disturbance, since nothing but the re-opening of the pit after the cairn had been placed in position could explain their presence. In addition, it would seem that the cairn must have been partly removed when the Iron Age ware was being thrown into the pit, and perhaps even to the level at which it was found on the southern sector, seeing that, subsequent to the deposition of ware of the Roman period, someone filled up the Centre Pit with earth, and then replaced over that a single layer of stones in such a way as to make them harmonise with the surrounding cairn.

This is really an extraordinary state of affairs. The grouping of the domestic pottery round the fireplace, and the smallness of the fireplace itself (it measured only 3 feet 6 inches by 2 feet 6 inches), can indicate nothing but the cooking of victuals in the pit, and to have done this amongst the scattered ashes of the dead can hardly be said to show any deep regard for the memory of the departed. The length of the period over which all this was happening makes one inclined to regard the whole affair as having some part in the purely domestic life of the people; and perhaps a reversal of feeling caused someone later to fill in the pit to stave this desecration.

RECUMBENT STONE, AND WEST AND EAST FLANKERS.

We have seen that the Inner Ring at the west end of the Recumbent Stone had been considerably disturbed, two stones lying against the latter, and two or three others being amissing. A glance at the Plan, Pl. I., near the East Flanker will show that the original intention of the builders had been to bring the Inner Ring round in such a way as to make it adjoin the monolith. Two stones connected the Inner Ring with the Recumbent Stone itself; but, in order to keep the cairn away from the latter, a sort of "fender" was built on the north side. In thus isolating the Recumbent Stone from the main body of the cairn, there seems to be a diversity of purpose: for the former has been included within the Inner Ring in addition to the main ring of monoliths. Whether the same arrangement obtained at the west end is uncertain, owing to the amount of disturbance that has taken place, but it is extremely likely.

Examination within the so-called "fender" yielded interesting results. At the west end there had been considerable disturbance, and

this extended very nearly to half the length of the Recumbent Stone. Beyond, and as far as the east end, conditions were quite different, for here were the remains of carefully laid paving. Moreover, the stones forming the "fender" were placed upon this paving, which was thus used as a foundation, so that the paving must have been laid prior to the building of the cairn. The paving itself was not laid upon the compacted floor, as had been the case with all the previous structural features so far noted: instead, approximately one foot of earth had been thrown down, and the paving was then laid upon that. Also, the earth itself had not been laid upon the compacted layer, as might have been supposed. The latter did not exist here; but instead there was a large hollow, which seems to have been scooped out, well into the subsoil, to receive the Recumbent Stone.¹ Just within the hollow, and at 7 feet below datum, an ornamented rim of very thick beaker ware (fig. 2, No. 1) was found, and this was buried under the earth which had been thrown down to form a foundation for the paving: and the laying of the paving preceded the building of the cairn. A sherd of coarse ware (No. 115) and a rim (No. 116), both of Iron Age date, were found upon the paving at 5 feet 11 inches below datum.

A definite estimate of the total height of the larger portion of the Recumbent Stone was unobtainable, owing to its being in direct contact with the subsoil, but that height is about 7 feet 2 inches, and the extreme length is 11 feet 2 inches. All indications pointed to the base being "keeled"; and this keel was seen to be rising towards the east end.

On the southern side of the Recumbent Stone there were irregular patches of stones which were most numerous round the West Flanker, and from here they tailed off in a northerly direction, ceasing altogether about midway between the West Flanker and monolith No. 2 (see fig. 4). There were very few towards the East Flanker, but it was obvious that a fair amount of robbing had taken place here. The purpose of these stones is not very apparent, and their limits are not within the possibility of determination. They could hardly be claimed to form a cairn, owing to the fact that there was but a single layer; and from the lack of similitude of order, they can hardly be claimed to be paving-stones. The stones themselves rested upon a 10-inch deep layer of moderately hard soil, which might either have been an accumulation upon the natural subsoil, or have been placed there deliberately, perhaps in much the same manner, and at the same period, as that under the paving on the north side. This

¹ A section through this hollow is shown in fig. 5. A similar hollow was noted at Old Keig (*Proc. Soc. Ant. Scot.*, vol. lxxviii. p. 375).

deposit yielded several potsherds: for the most part they belonged to coarse ware of early type in the Iron Age (Nos. 224, 225, 226, 227, at 6 feet 5 inches, 6 feet 7 inches, 6 feet 6 inches, and 6 feet 4 inches below datum), and a flint scraper (No. 223) was found almost upon the subsoil at 6 feet 10 inches below datum, whilst part of the base of a beaker (fig. 2, No. 17) was found at 6 feet 4 inches below datum. It would thus seem apparent that there must have been a good deal of disturbance in this area.



Fig. 4. Stony Area on S. and W. of Recumbent Stone.

The detached part of the Recumbent Stone was found to be standing in a most precarious manner, depending for support upon a few stones of the above stony area. It had dropped on to these from a higher level, a fact confirmed by some of the ridges in the cleft. There was a particularly prominent ridge at the west end which had a corresponding negative ridge on the opposite face of the larger mass, and the difference in levels amounted to nearly a foot. This difference was much less at the east end. There must, therefore, have been a considerable overhang on the south side, and it is possible that nothing more than its own weight and the presence of a "dry" caused the two halves to fall asunder. There was certainly no indication of the happening being deliberate. The maximum height of the detached portion is 6 feet, and it is probable that the halves abut at the base. Within the cleft, due to the confined space, it was only possible to effect clearance to

a depth of 5 feet 9 inches, at which level one half of a flint-scraper was found.

In regard to the Flankers, a curious exception to rule is to be noted here. Attention has been drawn, in a previous paper,¹ to the fact that flankers are usually self-supporting, with their long, or straight, sides adjacent to the Recumbent Stone, conditions which apply to most stone circles possessing large monoliths. At Loanhead, however, these conditions are reversed; for, not only are the short sides or "curves" adjacent to the Recumbent Stone, but the flankers depend entirely on the latter for support. This was obvious from the West Flanker, and the position of the shallow crater for the East Flanker proved beyond doubt that

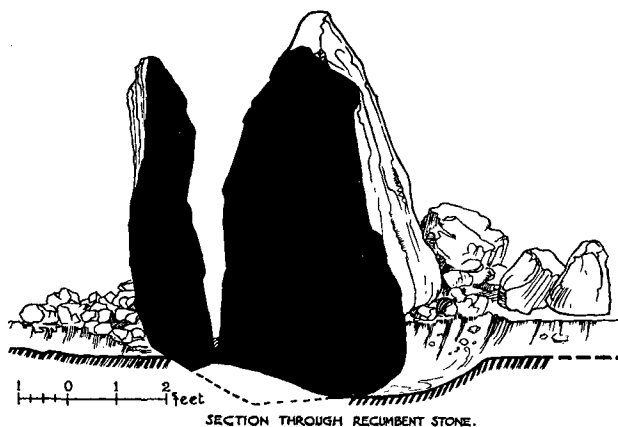


Fig. 5. Section through Recumbent Stone.

it had stood under like conditions. This shallow crater, if such it might be called, was situated near the last stone of the Inner Ring; and since it was only a mere 3 inches deep, it is probable that it was caused by the stone sinking into the subsoil under its own weight upon its triangular base. Two notable rims of Iron Age ware and a beaker sherd (fig. 2, No. 9) were found here. The rims are unique: one, quite plain and of simple type, expands into a lug three-quarters of an inch below the lip, whilst the other is of angular section (Nos. 181, 219).²

The apices of both flankers have been removed—that of the East Flanker in comparatively modern times, whilst the detached apex of the West Flanker is the subject of later discussion.

¹ H. E. Kilbride-Jones, "Stone Circles: A New Theory of the Erection of the Monoliths," *Proc. Soc. Ant. Scot.*, vol. lxxviii, pp. 81-96.

² See fig. 14, Nos. 2 and 12.

MINOR CAIRNS AND CRATERS OF PROSTRATE MONOLITHS.

The term, Minor Cairn, is being applied by the author to those stony areas situated around the monoliths of the main circle. Commencing in a clockwise direction, they take their numbers from those of the monoliths they surround, the West Flanker being monolith No. 1.

Cairn No. 2 was very fragmentary. Those stones remaining were well set, and apparently *in situ*; they rested upon 8 inches of well-packed earth above subsoil level. Three very small sherds were found amongst the stones, but nothing of further import, and no peculiarities of structure were noted.

Cairn No. 3 had also been subjected to a certain amount of disturbance. In the middle of the cairn, on the east side of the monolith, was a large stone carefully laid, measuring 2 feet 1 inch by 1 foot 8 inches, and resting upon its face on 10 inches of soil, the noted depth above subsoil. This stone was surrounded by two or more layers of small stones, except to the south, where there was another moderately large stone, measuring 1 foot 10 inches by 1 foot 3 inches. On the northern side there was a number of fairly large stones placed as though to form a kerb, and they rested upon the compacted layer noted elsewhere. It therefore seems conclusive that the soil found in the middle of the cairn must have been deliberately placed there by the builders. A pot¹ was found buried under the east side, just within the limits of the cairn, to judge from the position of the shallow socket of an Inner Ring stone discovered near here. Like the vessels of the centre pit, this pot seems to have been dashed upon the ground, or it may have been crushed by the weight of the cairn stones. It was no doubt placed there by lifting the edge of the cairn, and the clumsy replacement of the stones would cause the destruction. This pot was in nearly 80 pieces, and, unfortunately, so badly broken that very few can be found to join together. Incidentally, it rested upon subsoil. On the west side of the cairn the crater for the monolith was found. On being cleaned out its depth was noted to be 17 inches, and in shape it was of the same triangular form as the base of the monolith.² Round the mouth of the crater were many stones, well forced into the soil: these are undoubtedly original packing stones. A rim of beaker ware (fig. 2, No. 4) was discovered on the north side of the crater, in an area that once must have been covered by the cairn, all trace of which is now absent here.

Cairn No. 4 was in rather a ruinous condition, and no very definite indication remains of its original extent. In the middle was the crater

¹ See fig. 10, No. 5.

² See fig. 8.

for the prostrate monolith, surrounded like the previous one (No. 3) by moderately small stones, many of which were earth-fast and well embedded in the soil—undoubtedly packing stones. This crater was the most perfect and undamaged of all those found, and was 14 inches deep from the level of the packing stones, and of triangular form. Apparently the depth of every crater in this circle was governed by the presence of bed-rock. Nearly in front of the centre of the crater on the eastern side was a single large stone, measuring 1 foot 7 inches by 1 foot 6 inches, underneath which was a depth of 11 inches of soil, well packed and hard. Near this large stone, and contained in the soil, was the rim No. 239. The cairn here had been robbed of most of its stones.

The western half of the cairn must have been of considerably larger dimensions than the eastern half, to judge from its scattered remains. Whereas the empty pot found in Cairn No. 3 had apparently been symbolic of interment only, here was found definite evidence of burial, for the pot discovered on the outer limits on the north-west side had contained both calcined bone and charcoal, the latter mostly in fine powder form, darkening the surrounding earth, and the former represented by a few fragments only. That there was no more was probably due to disturbance, which had been considerable here. What remained of the pot¹ was scattered in almost equal quantities, roughly half the sherds being found at No. 231, which, from the presence of the calcined bone and the blackened earth, had undoubtedly been its original location, and the remainder at No. 233. For the deposition of this pot all earth had been scraped away, and it rested upon subsoil along with a sherd of beaker ware (fig. 2, No. 3). A small fragment of rim of a thick blackish-buff coloured ware was found at No. 232. In contrast to the half within the circle, the stones of this part of the cairn rested upon the compacted layer, here sometimes less than 2 inches thick above subsoil.

Of Cairns Nos. 5 and 6 little remains. Only a few stones situated between the Inner Ring and the prostrate monolith remain of No. 5, together with a small group on the north side. Cairn No. 6 was also represented by a few scattered stones lying between the Inner Ring and the prostrate monolith, and by a few on the north-east side. In both cases no relics were recovered.

The crater for monolith No. 5 was of fairly large dimensions, and somewhat disturbed, but on the southern side many of the original packing stones remained. It was 16 inches deep from the level of these stones, and cut down to bed-rock. The crater for monolith No. 6 was of peculiar form, and suited to the pointed base of the stone. It was

¹ See fig. 10, No. 3.

14 inches deep, and there were packing stones on all sides and several stones on the bottom, obviously placed there to fill up a crater that had been made too large.

Cairn No. 7 had suffered a certain amount of disturbance, notably near the place whence the Inner Ring stones had been removed, and also on the eastern side of the monolith; but what remained of it seemed to be *in situ*. Near the centre of the western part of the cairn was a single stone measuring 1 foot 5 inches by 1 foot 8 inches. It was 11 inches removed from the face of the monolith, and rested upon soil $10\frac{1}{2}$ inches deep. For the most part, the cairn was composed of small stones, with a few of larger dimensions on the south side, possibly the remains of its kerb. As noted elsewhere, the soil increased in depth towards the centre: it consisted firstly of a layer of yellowish-red coloured soil, 7 inches deep above subsoil, and thereafter it became reddish-black, and of a sticky nature. Several potsherds were found, the rims being all of one type (Nos. 241, 242, 243), and they were almost upon subsoil. Along with them was a single sherd of beaker ware (fig. 2, No. 13). It would seem, from these fragmentary remains, that the cairn had been opened more than once. On the eastern side the cairn had been laid upon a moderately steep decline, the same decline that had occasioned the attempt at levelling within the circle, already noted in connection with the Inner Ring. Here, however, the builders were content with conditions as they found them, so that there is a drop of nearly 2 feet between the level of the upper part of the cairn and that of the lower limits. The cairn itself here consisted mostly of fairly small stones, being little more than a single layer deep, with about an inch of soil between it and the subsoil. Amongst these stones, but not beneath them, was a single rim (No. 245) and a few fragmentary sherds.

The most perfect of the Minor Cairns was No. 8. That half within the main circle was contained within a kerb of moderately large stones, placed not quite contiguously, and carefully laid upon the compacted layer. As usual, there was a moderately large stone near the centre, and, on this occasion, abutting the monolith. The stone measured 1 foot 11 inches by 1 foot, and rested upon 11 inches of soil: the soil was deepest here, and became more and more shallow towards the kerb. Although apparently unmolested, this cairn did not yield any pottery at all. On the eastern side, without the circle, it had been partly robbed. One or two fragments of rather thick pottery were found upon the removal of the cairn stones, but nothing that could be identified with certainty. At the eastern end a number of large stones had been placed in practically a straight line between the two points indicated by arrows on the Plan,

Pl. I. The largest stone measured 2 feet 6 inches by 1 foot 9 inches, and none was less than a foot in height. The impression conveyed by their arrangement was that their original function had been to provide a sort of partition or division between the cairn just discussed and another cairn-like structure on the eastern side. All these stones of the "dividing line" had been carefully laid, much in the manner of the Crescent stones of the central Ring Cairn. The stones on the eastern side of this line, however, gave every appearance of being a continuation of Cairn No. 8, and they turned slightly in a southerly direction.¹ They formed barely a double layer, upon soil 3-4 inches deep, and after narrowing and diminishing in numbers, they joined a setting of flat stones of a fair size and well fitted together. When raised for examination these well-set, larger stones were found to be resting almost immediately upon the yellow subsoil. The largest measured 1 foot 10 inches by 1 foot 4 inches, and all were fairly smooth and flat. Underneath the largest stone was a cist which was entirely filled up. It was finely made, though somewhat irregular in shape, and measured in greatest internal length 1 foot 10 inches and in breadth 1 foot 0½ inch. It was composed of four slabs set on end, and corner to corner, so that in length they correspond with the internal measurements of the cist. The slab forming the west side decreased in height at one end, and a small stone, 11 inches long by 3½ inches broad, had been placed upon it here to level it up. The top of the cist was level with the surface of the subsoil, and it was 8 inches deep, this being the entire depth of subsoil here: the floor was therefore of natural bed-rock.

The cist was full of calcined bone and black earth, the greatest quantity of the former being at the northern end, where it reached nearly to the top. The bone must have been piled here, but had spread out from this centre to cover the whole floor, although in decreasing quantities towards the south end. Underneath the calcined bone at the

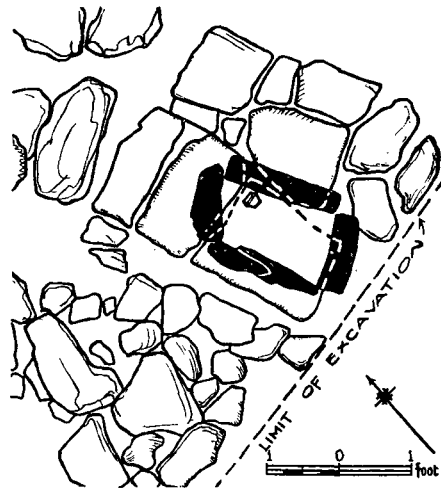


Fig. 6. Details of Cist.

¹ How far they extend in a southerly direction is unknown, since the time at my disposal this year did not permit of its complete examination.

northern end, and only an inch removed from the east wall of the cist and 4 inches from the north wall, was an Incense Cup (fig. 7) which lay upon its side with its mouth facing due north. It had undoubtedly been placed in the cist first, and then the calcined bone had been piled upon it. The Incense Cup was very little damaged, although it was in a somewhat friable condition. It is made of rather coarse paste, containing a great deal of large grit: red in colour, it is decorated with parallel, horizontal lines of cord ornament, rather closely grouped at the



Fig. 7. Incense Cup Urn. (†.)

mouth, but leaving a fairly wide space at the shoulder. The cup measures $2\frac{1}{4}$ inches in diameter and $1\frac{7}{8}$ inch in height.

The majority of the kerb stones of Cairn No. 9 were amissing, but otherwise it seemed intact. Much deeper than the previous examples, there were no less than four to five layers of stones, mostly of moderately small size, with the inclusion of a few larger ones. In the middle, and abutting the monolith on the north side, was a boulder measuring 1 foot 4 inches by 1 foot 2 inches and over a foot in thickness, which might be assumed to represent the usual well-placed stone found in a central position in the preceding cairns. There was less earth, too: here it was only about 7 inches deep. On the west side was found the remains of a rather crude, roughly made pot (No. 176).¹ Of Iron Age date, it was considerably smashed, and was represented by a large number of

¹ See fig. 10, No. 6.

very small sherds, so that little restoration has been possible. It was probably scattered by the cairn stones being roughly heaped upon it, after they had been lifted at the edge to admit of its being placed underneath. Three sherds, including part of the base, were found upon the compacted layer just outside the cairn (Nos. 177, 178, 179). On the south side of the monolith much of the cairn was missing. Those stones remaining were upon soil 6 inches deep.

Adjoining the cairn on the south side was a different form of structure, in that it was composed of larger stones, generally of a rough character, though fairly carefully laid down. Some of them were as much as 2 feet in length and over 1 foot in breadth, and they existed in marked contrast to the cairn stones. The area which they covered, which measures 11 feet 6 inches by 10 feet 3 inches, is not defined in any way by a kerb, and its rather irregular outline suggests that interference may have taken place here at some period. This paving, if such it might be called, consisted of a single layer of stones laid upon hard, compacted soil, the latter being about 3 inches deep (from subsoil level). Upon this paving, on the northern side, two sherds of beaker ware (No. 234, fig. 2, Nos. 5, 6) were discovered immediately upon the stones.

Studied collectively the Minor Cairns appear to have been of elliptical form, with their axes roughly conjoining in the centre of the main circle. The inner limits of the ellipse are determined by the Inner Ring, and by the kerb of stones seen to surround that part of the cairn situated within the main circle of monoliths; but the outer limits, without the main circle, seem to be undefined. The monolith itself is always situated in the middle of the cairn. In the centre of the inner half, between the Inner Ring and the main circle, is situated a single large stone, sometimes abutting the monolith, and always placed upon a deposit of earth, deepest here, and gradually diminishing in depth towards the kerb. This central stone was never found to cover anything, and is probably purely symbolical in purpose. Whereas that part of the cairn within the main ring contained a deposit of earth, that without contained none: when the former part has covered a pot, the vessel has not only presumably been empty when deposited, but it has been roughly buried by raising an edge of the cairn, throwing the pot in, and then replacing the stones. This implies that the cairn was already in existence when the Iron Age pot was buried, and that the cairns were actually re-opened for the deposition of this ware is suggested by the presence of Iron Age rims side by side with a sherd of beaker ware in the case of Cairn No. 7.¹

¹ This interpretation was first suggested to me by Mr A. O. Curle, whom I wish to thank for advice in this connection.

The only burials occurred outside the main ring in the Cist and in Cairn No. 4, and in this latter an Iron Age pot was again associated with a sherd of beaker ware. In the case of Cairn No. 3 a rim of beaker ware was found where the cairn, long since removed, should have been situated. Unfortunately, nothing is conclusive enough to prove whether the cairns were built at the same time as the circle itself, or whether they formed a later addition to the general plan of the monument. Be it said, however, that the evidence yielded by the Minor Cairns is somewhat reminiscent of that yielded by the central Ring Cairn, and just as open to speculation.

THE MONOLITHS.

A few remarks have already been made in connection with the West and East Flankers, and in particular about the Recumbent Stone. It need only be added that the last seemed to be untrimmed; but, judging from its face on the south side, it may have been split off at a quarry face.

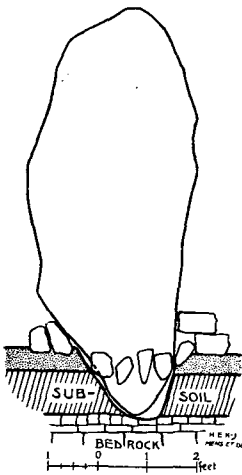


Fig. 8. Section through Monolith and Crater No. 3.

The West and East Flankers agree in shape with the principles set forth in a recent paper.¹ Although the West Flanker was not disturbed to its base, from what could be seen it was more or less of the same shape as the prostrate East Flanker, although its form might have been partly natural. Attention has already been drawn to the fact that both flankers relied upon the Recumbent Stone for support, and this might be thought to imply that they were erected subsequent to the placing in position of the latter. Were this so, their erection must have been an undertaking of extraordinary difficulty. The shape of the bases, however, makes it clear that they were erected according to principle—that is, from the position now occupied by the Recumbent Stone. By some means they must have been held in an upright position, whilst the Recumbent Stone was being moved into place, and then they were allowed to slip back slightly until they rested against it. This is an interesting variation of the usual practice.

The monoliths at Loanhead have not been so carefully chosen as those which constitute some of the Aberdeenshire stone circles; neither

¹ H. E. Kilbride-Jones, "Stone Circles: A New Theory of the Erection of the Monoliths," *Proc. Soc. Ant. Scot.*, vol. lxxviii, pp. 83-96.

has a great deal of time been devoted to their correct shaping. All, however, agree in general shape with the principles already set forth.¹ Those of the prostrate monoliths to which most attention has been devoted to the shaping of the base are Nos. 3 and 5; whilst the most unfortunate example is No. 6, with its pointed base, giving a small degree of security. The first two monoliths (Nos. 3 and 5) are examples of well-balanced design; whilst No. 6 is, naturally, top-heavy. There can be little doubt that, with their well-balanced outline and breadth and length of base, Nos. 3 and 5 were deliberately pulled down, since such stones, when once they have attained a vertical position, will show little inclination to fall without the help of extraneous forces.

Apart from No. 6, the prostrate monoliths have received a fair amount of attention from the stone-mason. Nos. 3, 4, and 5 have all been carefully squared, and the first and last provided with the traditional pointed apex and triangular base; whilst No. 4 still possesses the remains of the triangular base, although the top half of the monolith has been broken off and carried away, and that apparently not very long ago. The outline of No. 6 suggests that its shape was accidental. There are no indications of tooling, but most of the monoliths possess fairly even surfaces from which protuberances have been knocked off. The most irregular monoliths seemed to be those which still remained standing. No. 2 is a peculiarly shaped pillar, with rough, uneven surfaces. In contrast, No. 7 has two exceedingly smooth and flat faces, both front and back; surfaces which are, in addition, almost parallel to one another. No. 8 is a squat monolith of irregular form, and more than normal width; whilst No. 9 is a top-heavy mass of great width and thickness, and bearing upon it five cup-marks. Considering its slight tilt towards the interior, and the apparent narrowness of its base, it is rather remarkable



Fig. 9. Cup-marks on Stone No. 9.

¹ *Ibid.*, p. 88.

that it has remained standing for so long. The five cup-marks¹ are placed more or less vertically, one above the other, and upon a face the right angle to the plane of which would be almost due north. They are small cup-marks, varying from about $1\frac{1}{2}$ – $1\frac{3}{4}$ inch in diameter.

One interesting fact is manifest: the sockets, or craters, of the prostrate monoliths provided indubitable proof that the stones were all erected from the same side. Thus, if we stand in the middle of the circle and view each monolith from that point, we find that they were all erected from the right. The same conditions probably apply to those monoliths still erect, the only possible exception being the West Flanker.

The heights of the different monoliths above ground-level are as follows:—

Monolith No.	Height.	Total Length.	Greatest Thickness.	
			ft.	in.
1 (West Flanker)	7 2	—	2	10
2	6 2	—	2	6
3	6 10	8 3	2	0
4 (remains of)	2 8	3 10	2	5
5	6 6	7 11	2	6
6	5 $2\frac{1}{2}$	6 $4\frac{1}{2}$	2	5
7	4 7	—	1	5
8	4 6	—	2	7
9	6 9	—	2	7
10 (East Flanker) (remains of)	6 7	6 11	2	5

Although from the above figures there would appear to be no regular decrease in height of the monoliths from south to north, the declivity of the hill assists and completes the illusion, so that the effect produced on the mind with regard to Nos. 1 to 6 is of a gradual decrease in height. This effect is rather ruined, however, by the smallness of Nos. 7 and 8, and the contrast between them and the massive monolith No. 9.

Whereas the variation in the diameter of the circle is small, the mean diameter being 64 feet, the spacing of the monoliths upon the circumference of the circle is most irregular, varying between 12 feet 9 inches

¹ In a paper, "Cup-marks on the Stone Circles of Aberdeenshire and Banffshire" (*Proc. Soc. Ant. Scot.*, vol. lii. p. 86), the late Mr James Ritchie notes the existence of these cup-marks, although Coles neglected them. However, Mr Ritchie counts six, making the rather undefined mark above the top cup-mark to be the sixth. This appears to be nothing but a natural hollow in the stone, lacks any well-defined edge, and is of insignificant depth.

for the distance between Nos. 6 and 7 to 20 feet 9 inches between Nos. 4 and 5. It is the monoliths on the northern arc of the circumference which show such irregular spacing. The distances between pairs are as follows:—

Nos. 1 to 2, 17 feet 10 inches; 2 to 3, 19 feet; 3 to 4, 16 feet 6 inches; 4 to 5, 20 feet 9 inches; 5 to 6, 16 feet 6 inches; 6 to 7, 12 feet 9 inches; 7 to 8, 15 feet 9 inches; 8 to 9, 17 feet 6 inches; 9 to 10, 17 feet 9 inches.

THE SECONDARY FLOOR.

At some period, perhaps subsequent to the departure of the Romans from the North-East (taking into consideration the presence of rim No. 218 in the Centre Pit), the monument fell into ruin. Upon all the structure that we have noted before was a deposit of earth, which was over 2 feet deep on the north-east side and 1 foot to 1 foot 6 inches in depth on the south side: it was moderately well packed, as though it had remained undisturbed for some considerable time, excepting the north and north-west sectors, where subsequent disturbance was observed. The top of this deposit was characterised by a hard crust, which was a light brick-red colour when newly exposed. It was so hard that it could be struck with the side of a trowel, when little impression could be made upon it; but three or four hard scrapings were sufficient to break through it. In the opinion of Dr W. G. Ogg of the Macaulay Institute for Soil Research, Aberdeen, the brick-red colour of this crust was due to the deposition of iron salts, always present in the soils of this neighbourhood; salts which were washed down to this level from above (and there was loam 9 inches deep upon this crust) by the percolation of rain-water, and, finding passage through the crust impossible, had accumulated upon it. But for the presence of this crust, the iron salts would have been washed to a deeper level. Actually, the colour faded within three or four days.

No floor was apparent in the north and north-west sectors, so that the disturbance noted previously in connection with the central Ring Cairn must have taken place after the formation of this secondary floor—probably in early Mediæval times. Elsewhere, the secondary floor was found throughout the whole circle, and is represented by the Plan, Pl. III. In the eastern and southern sectors only the tops of the cairn stones were showing through the floor, whilst the Inner Ring stones were not entirely visible. Everywhere outside the main ring the secondary floor was found, even to the utmost extent of this year's excavation.

Upon the hard crust 127 potsherds were found, and of these only three were found at a higher level. The majority of the sherds were small and much rolled: they were as liberally scattered outside the circle as within it, and some had been half-trodden into the floor. Within the cleft of the Recumbent Stone, on a level comparable with that of the floor, a single potsherd was found. On the south side of the Recumbent Stone a large number of potsherds were discovered, and these were still being found in numbers at the limit of excavation. All the pottery was of native manufacture and hand-made, and the collection included fifteen rims. Included amongst the pottery are the sherds from the disturbed area in the north and north-west sectors, since, although they are valueless for purposes of dating, most were found in the disturbed earth when searching for the floor.

Apart from the pottery, a single object of lignite was discovered upon the floor in the south sector, whilst two flint scrapers, roughly fashioned of poor quality flint, were found partially embedded in the crust on the east side, outside the Inner Ring. The lignite object is of curious form, and of uncertain use: it has parallel, well-squared sides, exactly half an inch apart, whilst its length is exactly $1\frac{1}{2}$ inch. One end is smoothed and rounded, whilst the other is worn on both sides to a thin edge.

Of the five prostrate monoliths, Nos. 3 and 5 were resting immediately upon the secondary floor, and No. 5 had sunk to a depth of 2 inches under its own weight. The top portion of the West Flanker, which was lying outside the circle on the south side, was also found to be immediately upon the floor.

It will thus be seen that the secondary floor must have been formed during a period of complete disregard for the monument, and it virtually covers the wreckage of the structure.

Mention has already been made of a dyke seen to be closely associated with the monument on the north-east circumference of the circle. This dyke, which is entirely of earth, is probably of mediæval date, and is shown upon the Plan, Pl. III. Two sections were cut through it, one being marked "Trench," and the other was beside monolith No. 6. The trench yielded nothing but negative evidence: the dyke had spread out considerably on either side as it sank, and it is now less than a foot in height. Throughout this depth numerous very small potsherds, similar to those of the secondary floor, and much rolled, were found, so that it seems obvious that the dyke must have been constructed from surface scrapings from its immediate neighbourhood. The section by monolith No. 6 showed that the dyke here was only 10 inches deep and was

composed of loose loam, and the prostrate monolith (No. 6) lay upon it, so that it had fallen subsequent to its formation.

This mediæval dyke provided one more proof of the antiquity of the destruction of the monument. We observe from the Plan, Pl. III., that it completely overlay the Cist and the Minor Cairns Nos. 8 and 7, and it was still 10 inches deep near monolith No. 6: yet cairn No. 6 was virtually missing, except for a few scattered stones to testify to its former existence. This seems to indicate that stone circles ceased to possess any national import at an earlier period than had been thought probable.

CONCLUSIONS.

With so much that is inconclusive, it is difficult to hazard an opinion in regard to the date of the construction of the monument; and, considering the lack of corroborative evidence from elsewhere, it is best to reserve any serious attempt until a later occasion.

The finding of the Incense Cup has established the date of the structure in which it was found; and this structure forms a feature not encountered elsewhere, seeming as it does to be a later addition to the Minor Cairn No. 8, if we may place any significance in the so-called "dividing line" of stones. It is extremely likely that the Minor Cairn would have been in existence first, since it can hardly be maintained that the builders would design a stone circle to correspond with the existence of another structure having no connection with it; and, robbed of the Minor Cairn, the Cist and its covering structure cease to serve any purpose, and isolated cists, unless marked by the presence of a cairn, are usually hidden out of sight. We may conclude, therefore, from the necessity of orientating such a monument before its construction, that both the circle itself and the Minor Cairns were there first; and the Incense Cup indicates a middle Bronze Age addition of the Cist and its covering structure.

The presence of the beaker sherds in the Centre Pit and in the Minor Cairns gives a hint of even an earlier date, especially for the former, as we know that it was cleaned out by later comers possessing an Iron Age culture. Apart from this, the centre Ring Cairn itself possesses features which establish it as belonging to a date in the Bronze Age, and of these the Crescent is the most vital. Such a feature is not of very common occurrence; but it has been found in a round cairn at Collessie, Fife,¹ wherein were found two beakers and a gold-mounted bronze dagger; it was found in the round cairn at Carnassarie, Poltalloch, Argyll,² where the principal cist contained a food vessel; in

¹ J. Anderson, *Scotland in Pagan Times, Bronze and Stone Ages*, p. 5.

² J. H. Craw, *Proc. Soc. Ant. Scot.*, vol. lxxv. p. 276.

a round cairn at Inverlael, Inverbroom, Ross;¹ in a round cairn in Townland of Curraghbinny, Co. Cork;² and in a round barrow in the Netherlands.³ Where there have been undisturbed burials they have always been of the early-middle period of the Bronze Age, so that the Crescent is of some use in arriving at a possible date for the construction of the cairn that contains it. The centre Ring Cairn at Loanhead, however, would seem to be of a slightly later date than that indicated by the evidence provided by the above cairns, since the Crescent overlay the hearth upon which a body, or bodies, had been cremated. The cairn at Townland of Curraghbinny also yielded a cremated burial. We are therefore reduced to inferring that the construction of the centre Ring Cairn at Loanhead might have taken place in the middle Bronze Age, and that construction might even be contemporary with the deposition of the Incense Cup in the cist. Of one thing we can be sure, and that is that the construction of the cairn did not antedate the advent of cremation.

This hardly serves to explain the presence of the beaker sherds. We have seen that none was found where a cairn did not exist, so that one concludes that they must be associated in some way with that particular location, if not actually with the cairn itself. These locations are near the monoliths and in the Centre Pit, apart from the case of the paving adjoining Minor Cairn No. 9, which, taking into consideration the discovery of the two beaker sherds, might also be contemporary with the period represented by such ware. Now, the main ring of monoliths must have been in existence in the Bronze Age, No. 9 having upon its inner face five cup-marks,⁴ which, in Scotland, are regarded as being of early Bronze Age date.⁵ If that is so, there was ample opportunity for the deposition of beakers; and the discovery of the beaker rim in the scooped-out hollow beneath the Recumbent Stone would lend weight to the idea, especially since the paving, under which the rim was

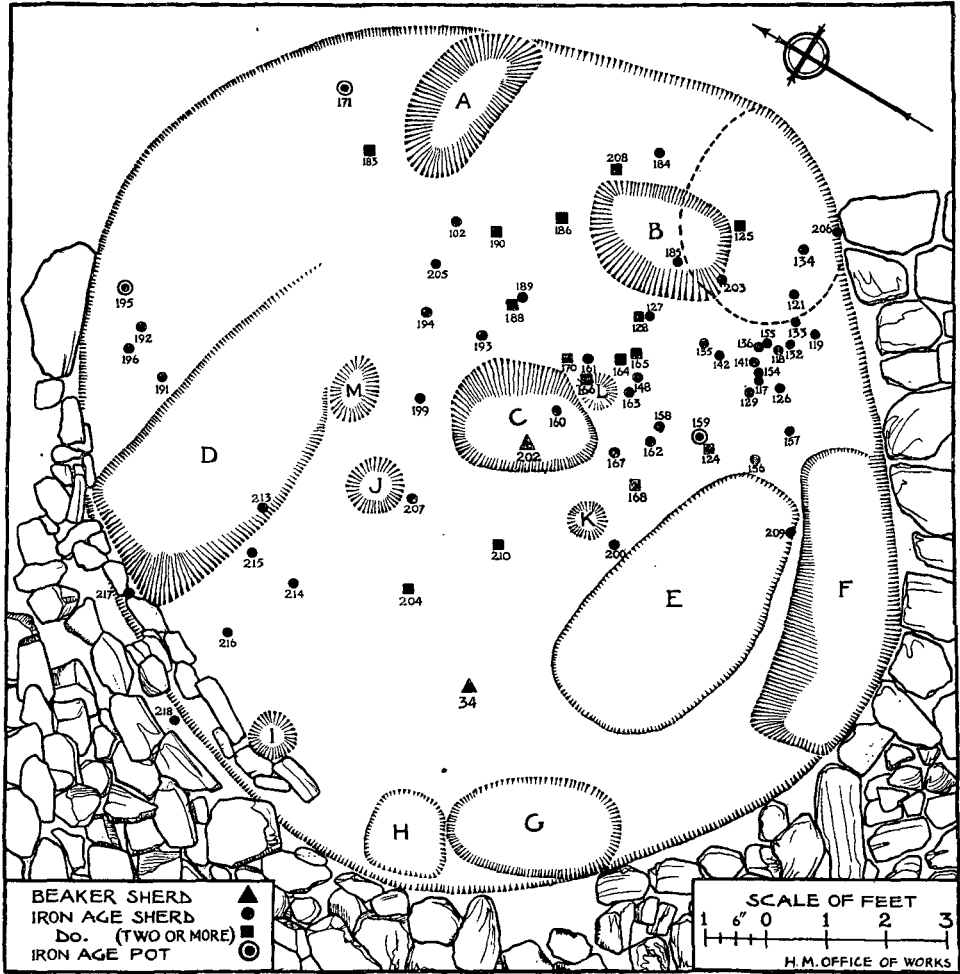
¹ James Cree, *Proc. Soc. Ant. Scot.*, vol. xlviii. p. 318.

² S. O'Riordain, *Jour. Cork Hist. and Arch. Soc.*, vol. xxxviii. p. 80.

³ A. E. van Giffen, *Die Bauart der Einzelgraber*, pl. 14.

⁴ Cup-marks are of fairly common occurrence upon the stones of stone circles in the North-East of Scotland, notably at Gask, Skene (on monolith); Nether Corskie, Echt (on West Flanker); Balnacraig, Lumphanan (on Recumbent Stone); Seanhinny, Midmar (on Recumbent Stone); Drumfours, Cushnie (on Recumbent Stone); Potterton, Belhelvie (on West Flanker); Balquhain, Chapel of Garioch (on East Flanker); Balhaggardy, Chapel of Garioch (on monolith); Loanend, Premnay (on Recumbent Stone); Pitglassie, Auchterless (on monolith); Thorax (on monolith); St Brandan's Stanes (on West Flanker); Rothiemay (cup- and ring-marks on Recumbent Stone, cup-marks on monolith); Harestanes, Feith-Hill (on monolith). All the above are described by James Ritchie in "Cup-marks on Stone Circles of Aberdeenshire and Banffshire," *Proc. Soc. Ant. Scot.*, vol. lii, p. 86. Dr J. Graham Callander has kindly informed me that there are cup-marks upon the Recumbent Stone of the circle at Candle Hill, Oyne.

⁵ This is admitted in V. Gordon Childe, *The Bronze Age*, pp. 150, 164 ff.



Details of Centre Pit.

H. E. KILBRIDE-JONES.

PLATE II.

[To face page 196.]



SECTION A-B



SECTION C-D

- UPRIGHT STONES ■
- FALLEN IN THE ■
- KEAB STONES ■
- BEAKER SHERD ▲
- NATIVE WARE ●

H.M. OFFICE OF WORKS
EDINBURGH, 1934

Plan and Sections of Secondary Floor.

H. E. KILBRIDE-JONES.

PLATE III.
[To face page 196.

ANALYSIS AND INVENTORY OF IRON AGE POTTERY FROM LOANHEAD OF DAVIOT.

The collection of Iron Age pottery from the stone circle at Loanhead of Daviot is truly remarkable on account of its variety, and nothing comparable in numbers has hitherto been found upon the mainland of Scotland. Most of our Iron Age pottery has been recovered from dwelling-places in the isles around our coasts, most notable being that from Jarlshof. Isolated in these small islands of the north and west, the ware is less subject to external influence, and local development may either show a lagging behind or it may advance after its own ideals. With such a collection from the mainland as that now under consideration, any movements or trade relationships of the people would be likely to make themselves felt in the forming of rim and outline, so that an analysis might throw fresh light upon the culture of the potters, whether that culture was indigenous or whether it was subject to foreign influence.

Such an analysis is attempted here. The development of rim form, even in its diversity, appears to be so orderly, and alike the change of texture and outline, that a division into Type and Period has been attempted. A rapid change in texture and form has occasioned the termination of one period and the beginning of another; but the absence of associated datable relics makes the division purely tentative.

Period I.

Type 1.—This type is probably the earliest of characteristic Iron Age forms: it merely follows the example set by the formless rims of the latest cordoned cinerary urns. The quality of the ware is suggestive of the cinerary urn: it is friable, poorly baked, and coarse, usually containing large grit; and the vessels seem to have been wide-mouthed, but narrowing to the base.

Towards the end of Period I. a change takes place: the paste becomes finer, the grit is better ground, and there is more care displayed in the manufacture of the ware. Moreover, the potters were beginning to experiment with rim form.

Vessels similar to Type 1 were characteristic of the earliest period at Jarlshof.¹

¹ A. O. Curle, "An Account of Further Excavation at Jarlshof, Sumburgh, Shetland, in 1932 and 1933, on behalf of H.M. Office of Works," *Proc. Soc. Ant. Scot.*, vol. lxxviii. p. 283 *et seq.*

Period II.

At the beginning of this period the experiment in rim form, which was noticed at the end of Period I., is rapidly carried forward.

Types 2 and 3.—These two types represent a parallel development.

The vessels seem to be decreasing in size, their walls are thinner, the paste is of a finer texture, and they are better baked. The rims are often carefully and well formed. Whereas Type 2 seems to continue to be wide-mouthed, Type 3 shows a constricting of the neck, which naturally tends to produce a globular form.

Type 4.—This type is derived from No. 2, Type 2, and becomes a parallel development thereto. This seems to be both domestic and sepulchral ware. The constricting of the neck is again noticeable.

The flattening of rim, noted in connection with Type 2, is typical of the second period at Jarlshof.¹

Period III.

Whereas there seemed to be a general tendency for the ware of Period II. to become darker in colour, that of Period III. is black. The average product of this period is fairly thin, the paste is well baked and hard, and the grit content is sometimes so fine as to be nearly invisible. This is a period of globular pots: and the steady decrease in the size of mouth, noticeable at the beginning, increases the angle of the lip to the wall. Then a change takes place: with the advent of a more slender form of vessel, the lip and neck straighten out, and the globular form is far less pronounced. This sequence of development and degeneration probably ends towards the beginning of the Roman period.

Type 2.—Still persisting into Period III. is Type 2, now in a final and curious form, and black throughout.

Type 5.—This ware is apparently purely domestic. The origin of the type is to be found in No. 3, Type 4. Development is gradual, and reaches a maximum in No. 7: thereafter there is a gradual degeneration, and at the end of the period it seems almost as though the potters had once again lost all interest in rim form.

Period IV.

A re-awakening interest in rim form characterises this period. The ware is no longer black, but instead, more often than not, is of a red

¹ A. O. Curle, *Proc. Soc. Ant. Scot.*, vol. lxxviii. p. 283 *et seq.*

colour. It is difficult, from the small number of rims (only 4 were found), to judge whether the potters were influenced by the penetration of exotic forms, except in the case of No. 4, Type 6, which seems to be definitely of Roman type. We may take it, therefore, that Period IV. saw the arrival, and very likely the departure, of the Romans; and the period is probably contemporary with the later occupation of the brochs.

Type 6.—A heavy slip, which is well burnished, is characteristic of this type. The ware is usually red throughout, and contains fine grit, and is well baked.

In reviewing the foregoing types, there seems to be little ground for assuming that the potters were influenced by the intrusion of exotic forms, and the mere flattening of a rim is insufficient to prove a connection with types characteristic of certain Iron Age sites in England. Such a flattening is the most natural outcome of the potters' imagination, and is apparent in nearly all ages. When, however, the potter commences to fashion or distort the slight inversion and eversion produced by that flattening, we can safely attach some significance to the form thereby produced: it will either follow local development, or else it will be distorted in such a way as to provide definite evidence of the introduction of exotic forms from outside. Moreover, excepting a definite movement of peoples, we might expect to find the exotic ware side by side with the native copies, just as in the south-west of England we find imported Belgic ware side by side with native hand-made copies. However, such conditions cannot be claimed for Iron Age sites in Scotland: instead, the native pottery seems to be the natural outcome of local national development, a development that was both gradual and peaceful. There is nothing in England comparable to the development of Type 2 in Period III.

Apart from the question of origin, there are certain resemblances to southern types which might be noted here. At Park Brow, near Cissbury,¹ there seems to be the same orderly sequence which we noted at Loanhead, from a wide mouth to a narrowing of the neck, the angle of the rim to the body of the vessel becoming steeper throughout the "La Tene IV." period. Our pottery further agrees to some extent with the general change of colour of the Iron Age ware from Fifield Bavant Down,² where that of Hallstatt type is red to reddish-brown, and that nearer Romano-British times becomes predominantly black. A few of our

¹ *Archæologia*, vol. 76, pp. 19-25.

² R. C. C. Clay, *Wills. Arch. Mag.*, vol. xlii. p. 475.

pot-forms, too, seem to recall to mind the types characteristic of the La Tene I. period in England, although none of the rim forms of the latter are like the Scots Iron Age forms. Then there is the rim which expands into a lug three-quarters of an inch below the lip (No. 181). Although there are no parallels in Scotland, at Fifield Bavant pots

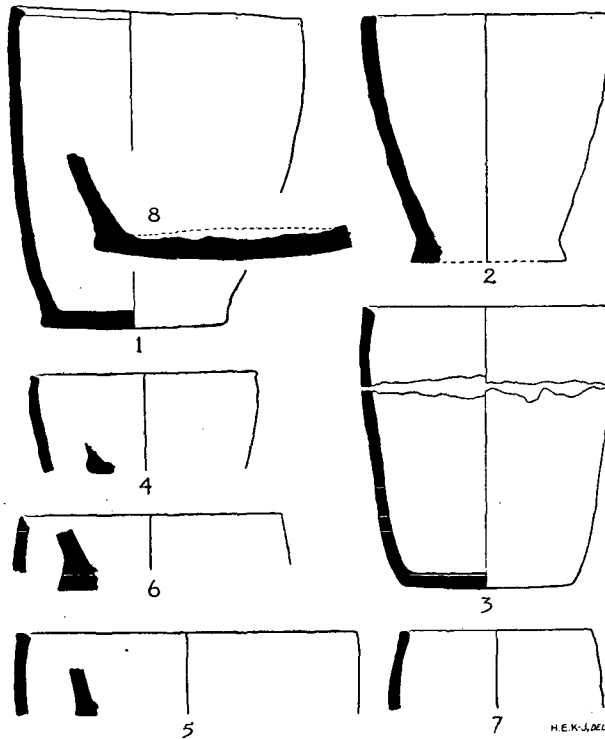


Fig. 10. Restored Iron Age Vessels. (†.)

with similar lugs were found,¹ although in the latter instance they were pierced vertically, whereas the Loanhead specimen is unpierced (see Miscellaneous Rims, No. 12). Again, No. 3 of Type 1 might have borne some resemblance to the outlines of some of the early ware from Scarborough.²

So much for the story revealed by the form of rim and outline. In turning to a consideration of base types, we discover that very little can

¹ R. C. C. Clay, *Wills. Arch. Mag.*, vol. xlii. p. 474, pl. iv. fig. 10. See also Swallowcliffe Down, La Tene I. site, in *Ibid.*, vol. xliii. pl. vi. fig. 5.

² *Archæologia*, vol. 77, pp. 189-90.

be added to what has just been said. Apart from the sparsity of bases (there are only fifteen represented), only seven were associated with rims, and these, unfortunately, all belong to the earlier periods. We are thus left with an entire absence of data as to the form assumed in Periods III. and IV., when attention to detail was making itself manifest. It will be seen that the bases with the most pronounced splay all belong to Period I. and the beginning of Period II. Type 1, No. 9 (fig. 10, No. 2), has not entirely shaken off Bronze Age influence: in feeling it is essentially a Bronze Age type, and it shows with what tenacity the potters, now living in an age of iron weapons and tools, clung to the old conventions. The same tradition is handed down to Period II., where we observe that No. 3 of Type 3, derived incidentally from the above example, possesses the same wide splaying of the base. It is an idea that makes for clumsiness, and when the ware becomes finer, and the form of rim more delicate, we see that conservatism will have its way, but the splay is now small and sometimes carefully rounded off (fig. 10, No. 4; Type 3, No. 7), and, in one instance, entirely absent (fig. 10, No. 3; Type 4, No. 1). The development of the globular pot would tend to bring back the splay into fashion, since something of this nature is required to give width to the base and stability to the pot. Such a base is probably No. 4, fig. 15A.

In reviewing the foregoing details we see that whilst this country was probably conscious of developments proceeding outside its confines, it was very little influenced in the matter of pottery form. That was indigenous, the result of native artistry.

Period I. (see fig. 11).

- Type 1.*—No. 1. Rim of coarse, fairly hard ware, containing large grit. Pinkish-buff throughout, but slightly blackened on exterior. Plan No. 225, found at 6 feet 7 inches below datum. Parallel: Old Keig, fig. 13, Nos. 5 and 8.¹
- „ No. 2. Rim of coarse ware, containing large granite grit. Black exterior to half of thickness, red interior to half of thickness of ware. Plan No. 224, found at 6 feet 5 inches below datum.
- „ No. 3. Rim of fairly thick, though moderately fine ware, containing fine grit. Buff in colour, with encrusted interior. Plan No. 241, found upon sub-soil in Minor Cairn No. 7.

¹ V. G. Childe, *Proc. Soc. Ant. Scot.*, vol. lxxviii. p. 390.

Type 1.—No. 4. Rim of coarse friable ware, black exterior, buff interior. The paste is burnt black to half its thickness, and contains very large grit. Plan No. 209, found in Centre Pit at 7 feet 4 inches below datum.

„ No. 5. Rim of thick coarse paste, containing small grit. Reddish exterior, extending to half of thickness; black interior, thickly encrusted. Plan No. 242,

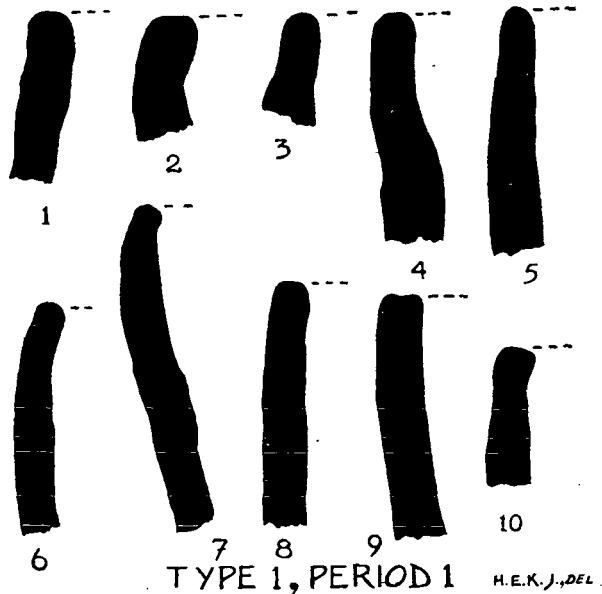


Fig. 11. Rims of Type 1, Period 1. (♯.)

found in Minor Cairn No. 7 at 4 inches above sub-soil. Parallel: Jarlshof, fig. 52, No. 3.¹

„ No. 6. Rim of friable ware, of brick-red colour, with slight blackening on exterior. Loose porous paste, containing small grit. Plan No. 193, found in Centre Pit at 7 feet 5 inches below datum. Parallel: Jarlshof, fig. 59, No. 8.²

„ No. 7. Rim of moderately hard, reddish-buff ware, blackening at rim. Interior heavily encrusted. Paste contains small grit, and is smoothed on exterior. Plan No. 239, found in Minor Cairn No. 4.

¹ A. O. Curle, *Proc. Soc. Ant. Scot.*, vol. lxxviii. p. 285.

² *Ibid.*, p. 296.

- Type 1.*—No. 8. Rim of coarse, porous ware, containing granitic grit. In colour, red throughout. Plan No. 184, found in Centre Pit at 7 feet 11 inches below datum. Parallel: Jarlshof, fig. 57, No. 13.¹
- „ No. 9. Pot of fairly hard, coarse paste, containing large grit. Exterior slightly slipped; interior smoothed, but not slipped, gritty to touch. Buff in colour, with patches of encrustation on interior. Plan No. 159, found in Centre Pit at 7 feet 5 inches below datum.
- „ No. 10. Rim of coarse, light buff-coloured ware, containing medium-sized grit. Core of blackish colour. Plan No. 204, found in Centre Pit at 7 feet 6 inches below datum. Parallel: Old Keig, fig. 5, No. 2.²

Period II. (see fig. 12).

- Type 2.*—No. 1. Pot of fairly hard paste, containing little grit. Blackish exterior, red interior. Plan No. 198, found in Minor Cairn No. 3. Parallels: Old Keig, fig. 5, Nos. 1, 7, 8; ³ fig. 13, No. 6.⁴ Jarlshof, fig. 31, No. 3.⁵ Traprain Law, fig. 12, No. 17.⁶
- „ No. 2. Rim of coarse ware, containing very little grit; thin slip on interior. Interior brownish-red, exterior blackish, with slight encrustation. Plan No. 151, found at 6 feet 10 inches below datum. Parallel: Old Keig, fig. 13, Nos. 3 and 4.⁷
- „ No. 3. Rim of reddish-black ware; fairly fine paste, containing fine grit. Plan No. 187, found at 6 feet 7 inches below datum. Parallel: Covesea, fig. 11, No. 6.⁸
- „ No. 4. Rim of moderately fine paste, containing fine grit. Buff exterior, slightly encrusted, buff-red interior; well baked and hard. Plan No. 144, found at 5 feet 6 inches below datum.
- „ No. 5. Pot of moderately hard paste, containing medium-sized grit. Black interior and exterior, red towards base. Both interior and exterior apparently slipped and smoothed. On interior of base fine

¹ *Ibid.*, p. 292.

⁴ *Ibid.*, vol. lxxviii. p. 390.

⁷ *Ibid.*, vol. lxxviii. p. 390.

² *Ibid.*, vol. lxxvii. p. 46.

⁵ *Ibid.*, vol. lxxvii. p. 111.

⁸ *Ibid.*, vol. lxxv. p. 190.

³ *Ibid.*

⁶ *Ibid.*, vol. xlix. p. 157.

finger impressions. Plan No. 195, found in Centre Pit at 7 feet below datum. Parallel: Old Keig, fig. 5, No. 4.¹

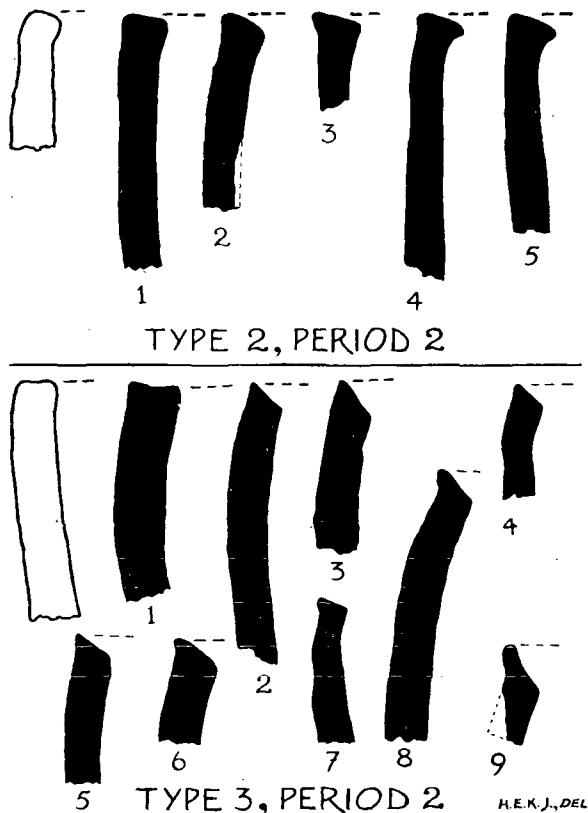


Fig. 12. Rims of Types 2 and 3, Period 2. ($\frac{2}{3}$.)

(Note.—Type 2 is a derivative of Type 1, No. 10, and Type 3 of Type 1, No. 9. Derivatives in black, originals open.)

Period II. (see fig. 12).

Type 3.—No. 1. Rim of thick, moderately coarse ware, containing small grit, with slight slip on interior. Blackish-brown in colour. Plan Nos. 158, 199, 200, found in Centre Pit at 7 feet 4 inches (158), 6 feet 5 inches (199), and 7 feet 5 inches (200). Parallel: Jarlshof, fig. 52, No. 5.²

¹ *Proc. Soc. Ant. Scot.*, vol. lxxvii, p. 46.

² *Ibid.*, vol. lxxviii, p. 285.

- Type 3.*—No. 2. Rim of coarse paste, containing fairly large grit. Brownish-black exterior, black interior with encrustation. Plan No. 136, found in Centre Pit at 7 feet 2 inches below datum.
- „ No. 3. Pot of coarse, fairly hard ware, containing small, and sometimes large, grit. Light reddish-buff at base, blackening towards the rim. Slight slip on interior. Pronounced vertical finger striations on exterior. Plan No. 176, found in Minor Cairn No. 9.
- „ No. 4. Rim of moderately fine paste, containing small grit. Buff in colour. From Centre Pit.
- „ No. 5. Rim of moderately fine paste with black core, and containing fine grit. Light brownish-black in colour, slightly blacker interior. Plan Nos. 154, 157, found in Centre Pit at 7 feet 5 inches and 7 feet 8 inches below datum.
- „ No. 6. Rim of thick, moderately coarse ware, containing some large grit. Buff in colour, blackened interior, smoothed on both surfaces. Plan No. 171, found in Centre Pit at 7 feet 6 inches below datum.
- „ No. 7. Part of pot of hard, thin ware, containing fine grit. Dark red exterior, black interior, slightly encrusted. Interior smoothed, and perhaps slipped. Plan No. 171, found in Centre Pit at 7 feet 6 inches below datum. Parallel: Old Keig, fig. 13, No. 11.¹
- „ No. 8. Rim of red ware, black interior with heavy encrustation. Coarse paste, containing fairly large grit. Plan No. 171, found with above (No. 7). Parallel: Covesea, fig. 11, No. 1.²
- „ No. 9. Rim of hard, blackish ware, reddish exterior. Fine paste, containing fine grit, and smoothed. Plan No. 116, found at 5 feet 9 inches below datum.

Period II. (see fig. 13).

- Type 4.*—No. 1. Pot of fairly hard ware, containing small grit. Light reddish-buff in colour, encrusted on part of interior and by rim on exterior. Slight vertical

¹ *Ibid.*, vol. lxxviii. p. 390.

² *Ibid.*, vol. lxxv. p. 190.

finger striations on exterior towards base. Plan No. 233, found in Minor Cairn No. 4.

Type 4.—No. 2. Rim of moderately fine paste, containing fairly large grit. Reddish-brown exterior, black in-

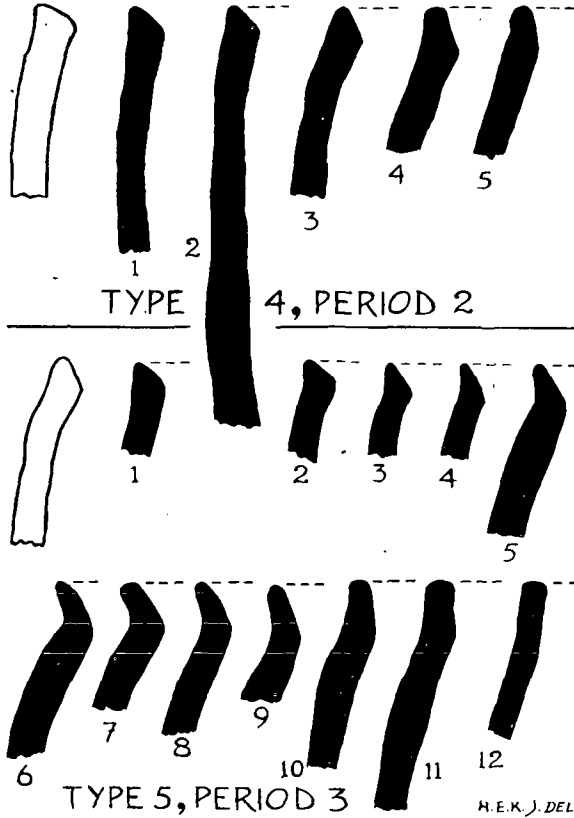


Fig. 13. Rims of Type 4, Period 2, and of Type 5, Period 3.
 (Note.—Type 4 is a derivative of Type 2, No. 2, and Type 5 of Type 4, No. 3.)

terior thickly encrusted. Plan No. 205, found in Centre Pit on subsoil at 7 feet 9 inches below datum. Parallel: Traprain Law, fig. 12, No. 7.¹

„ No. 3. Rim of fairly fine paste, containing one or two pieces of large grit. Black ware, red exterior, interior encrusted. Plan No. 150, found at 7 feet below datum. Parallel: Traprain Law, fig. 12, No. 12.²

¹ A. O. Curle, *Proc. Soc. Ant. Scot.*, vol. xlix, p. 157.

² *Ibid.*

Type 4.—No. 4. Rim of hard, black ware, with red exterior, containing fine grit. Interior slightly slipped and heavily encrusted, exterior smoothed. Plan No. 213, found in Centre Pit at 7 feet below datum.

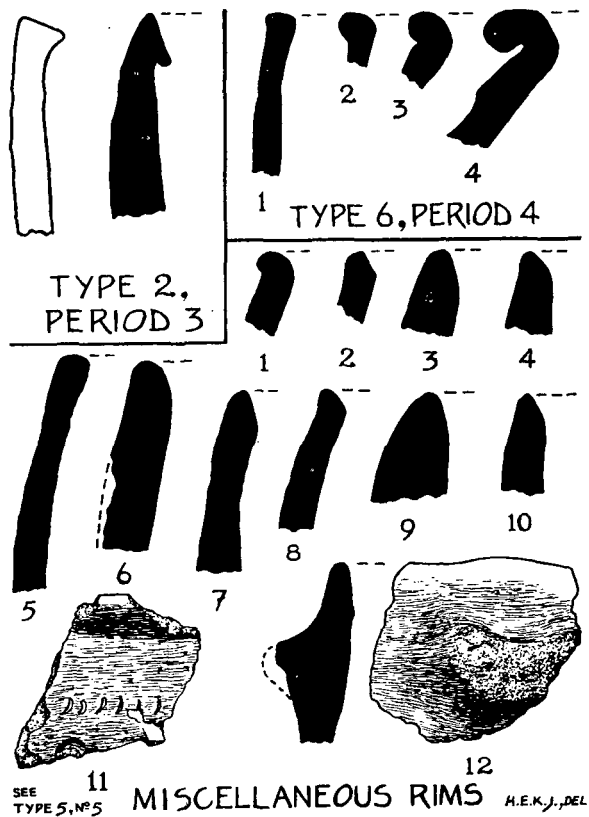


Fig. 14. Rims of Type 2, Period 3; Type 6, Period 4; and Miscellaneous Rims.

(*Note.*—Type 2, Period 3 is a derivative of Type 2, No. 5, and Type 6 perhaps of Type 5, No. 12, although this is uncertain.)

Type 4.—No. 5. Rim of hard, moderately coarse ware, containing fine grit. Buff in colour. Plan No. 182, found at 7 feet 6 inches below datum.

Period III. (see fig. 14).

Type 2.—Rim of thick, black ware, containing medium-sized grit. Exterior heavily encrusted. The ware is shiny, yet rough to the touch, and has probably been

slipped. Plan No. 189, found in Centre Pit at 7 feet 4 inches below datum.

Period III. (see fig. 13).

- Type 5.*—No. 1. Rim of moderately fine, hard paste, containing small grit. Buff coloured, blackish exterior. Plan No. 238, found on subsoil in Minor Cairn No. 4.
- „ No. 2. Rim of hard, blackish ware, red exterior, containing fine and medium-sized grit. Slightly slipped, and smoothed on both faces. Found in Centre Pit.
- „ No. 3. Rim of hard, thin ware, containing fine grit. Reddish-buff in colour, black interior, slightly encrusted. Slipped and smoothed. Plan No. 179, found at 7 feet 8 inches below datum. Parallel: Covesea, fig. 11, No. 2.¹
- „ No. 4. Rim of hard, light-buff ware, fine paste containing fine grit. Plan No. 111, found at 5 feet 7 inches below datum.
- „ No. 5. Rim of hard ware, containing fine grit. Blackish-buff in colour, smoothed and slipped on interior, smoothed on exterior. Decorated below rim. Plan No. 149, found in post-hole (?) at 5 feet 9 inches below datum.
- „ No. 6. Rim of hard ware, containing fine grit. Blackish-buff in colour, smoothed; slight encrustation on interior. Plan No. 147, found at 5 feet 5 inches below datum. Parallel: Covesea, fig. 21, No. 1.²
- „ No. 7. Rim of hard, greyish-buff ware, containing fine grit. Smoothed, producing shiny, but gritty, surface. Plan No. 152, found at 6 feet below datum.
- „ No. 8. Rim of hard, buff-coloured ware, containing fine grit; smoothed. Plan No. 153, found at 5 feet 10 inches below datum.
- „ No. 9. Rim of hard ware, containing fine grit. Blackish-buff in colour, smoothed; exterior encrusted.
- „ No. 10. Rim of hard, fine paste, containing small grit. Black paste, red exterior, slipped; interior slipped and smoothed and heavily encrusted. Plan No. 217,

¹ *Proc. Soc. Ant. Scot.*, vol. lxxv. p. 190.

² *Ibid.*, vol. lxxv. p. 203.

found in Centre Pit at 7 feet 2 inches below datum. Parallel: Covesea, fig. 11, No. 3.¹

- Type 5.*—No. 11. Rim of hard ware, containing small grit. Black paste, red exterior. Interior slipped and smoothed, exterior smoothed. Plan No. 214, found in Centre Pit at 7 feet 3 inches below datum. Parallels: Covesea, fig. 11, No. 3;² Traprain Law, fig. 12, No. 8.³
- „ No. 12. Rim of hard, thin ware, containing fine grit. Buff in colour, with pinkish-buff exterior. Smoothed on both sides, but gritty to touch. Found in Centre Pit.

Period IV. (see fig. 14).

- Type 6.*—No. 1. Rim of thin, hard ware, containing fine grit. Blackish paste, with red exterior, smoothed. Plan No. 154, found in Centre Pit at 7 feet 5 inches below datum.
- „ No. 2. Rim of hard, but much rubbed blackish-buff ware, containing very small grit.
- „ No. 3. Rim of hard ware, containing small grit. Reddish-black in colour, with thick slip on rim and interior, burnished. Plan No. 245, found amongst stones of Minor Cairn No. 7.
- „ No. 4. Rim of hard ware, containing small grit. Dark red in colour, covered on interior and exterior with thick slip; burnished. There is apparently the beginning of a shoulder below rim. Plan No. 218, found in Centre Pit at 7 feet 5 inches below datum.

Miscellaneous Rims (see fig. 14).

- No. 1. Rim of fairly hard ware, containing small grit. Buff throughout in colour, red slip on exterior and interior. Plan No. 244, found in cairn-like structure near cist.
- No. 2. Rim of thin, hard, black ware, containing fine grit. Slipped and slightly burnished. Plan No. 219, found in filling in socket of East Flanker.
- No. 3. Rim of fairly hard, blackish-buff ware, containing small grit. Smoothed on interior. Plan No. 232, found in Minor Cairn No. 4.

¹ *Proc. Soc. Ant. Scot.*, vol. lxy. p. 190.

² *Ibid.*

³ *Ibid.*, vol. xlix. p. 157.

- No. 4. Rim of fairly hard, reddish-buff coloured ware, containing small grit. Rather decayed, but probably slipped. Plan No 238, found in Minor Cairn No. 4.
- No. 5. Part of pot of hard yet coarse ware, containing fairly large grit; the ware has rather the appearance of flaky pastry. Pinkish-buff in colour, greyish at lip. Slightly slipped, with some attempt at smoothing. Plan Nos. 171, 185, 190, 204, found in Centre Pit at 7 feet 6 inches for Nos. 171, 185, and 204; at 7 feet 1 inch for 190.
- No. 6. Rim of moderately hard, reddish ware, containing medium-sized grit. Slipped on interior and exterior, slightly bur-nished on exterior. Plan No. 243, found in Minor Cairn No. 7.
- No. 7. Rim of coarse, hard ware, containing some large grit. Buff coloured, slightly black core, with slight encrustation on exterior. Plan No. 186, found in Centre Pit on subsoil at 7 feet 9 inches below datum.
- No. 8. Rim of hard, black ware, red exterior. Fine paste, containing fine grit; interior slipped and smoothed, exterior slipped. Plan No. 183, found in Centre Pit at 7 feet 3 inches below datum.
- No. 9. Rim of brick-red, friable ware, containing small grit. Slightly slipped on interior. Plan Nos. 169, 212.
- No. 10. Rim of coarse ware, containing moderately large grit. Exterior reddish-buff, interior blackish. Exterior coarse and rough, interior slipped and smooth. Plan No. 119, found in filling of Centre Pit at 6 feet 5 inches below datum.

Bases (see fig. 15A).

- No. 1. Base of fairly hard ware, containing small grit. Buff throughout in colour; smoothed on interior and exterior. Plan No. 206, found on subsoil in Centre Pit at 7 feet 10 inches below datum.
- No. 2. Base of coarse ware, containing medium-sized grit. Red throughout in colour. Plan No. 173, found at 7 feet 3 inches below datum.
- No. 3. Base of ware, containing small grit. Exterior red and friable, interior black, slipped and hard; interior slightly encrusted. Plan No. 141, found in Centre Pit at 7 feet 3 inches below datum.
- No. 4. Base of moderately hard ware, containing small grit. Black

paste, red crust on exterior; slight encrustation on interior.
 Plan Nos. 155, 208, found in Centre Pit at 7 feet 6 inches
 below datum.

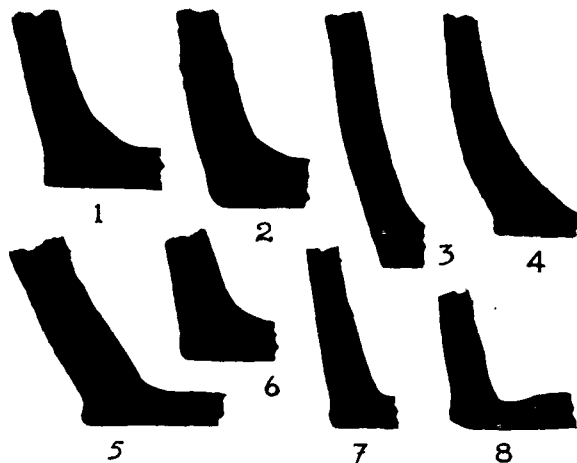


Fig. 15A. Bases from Centre Pit and elsewhere.

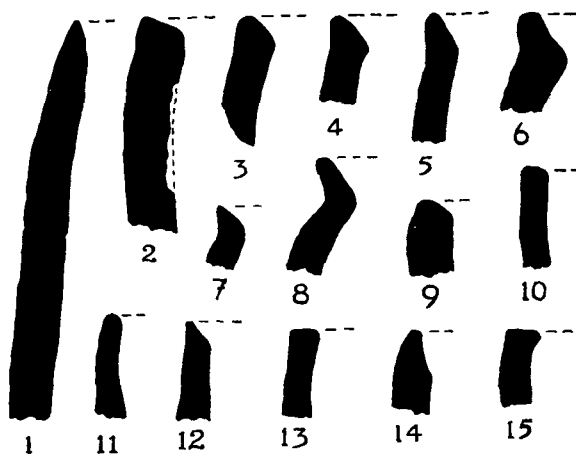


Fig. 15B. Rims from Secondary Floor.

- No. 5. Base of fairly coarse ware, containing medium-sized grit.
 Red, with slightly black core, smoothed on exterior. Plan
 No. 221.
- No. 6. Base of fairly hard ware, containing small grit. Buff in

- colour, smoothed on both surfaces. Plan No. 204, found in Centre Pit at 7 feet 6 inches below datum.
- No. 7. Base of red, friable ware, containing small grit. Slightly smoothed, interior encrusted. Plan No. 124, found in Centre Pit at 7 feet below datum.
- No. 8. Base of hard ware, containing fine grit. Blackish-coloured ware, red on exterior. Exterior smoothed, interior slipped and smoothed and encrusted. Plan No. 210, found in Centre Pit at 7 feet 4 inches below datum.

Rims from Secondary Floor (see fig. 15B).

- No. 1. Rim of thick, coarse ware, containing some very large grit. Reddish-buff in colour, blackened internally. Plan Nos. 62, 63, found in disturbed area at 6 feet 7 inches below datum.
- No. 2. Rim of thick, coarse ware, containing medium-sized grit. Blackish-buff in colour. Plan No. 50, found on stones near edge of disturbed area at 6 feet 10 inches below datum.
- No. 3. Rim of moderately coarse ware, containing small grit. Exterior red, interior black in colour. Plan No. 29, found in disturbed area at 6 feet 7 inches below datum.
- No. 4. Rim of fairly hard, buff-coloured ware, containing fine grit. Interior slipped and smoothed. Plan No. 77, found on floor outside main ring.
- No. 5. Rim of fairly hard ware, containing fine grit. Black paste, red exterior to depth of 1/16th inch, and reddening near rim on interior. Plan Nos. 8, 9, found in disturbed area at 6 feet 3 inches below datum.
- No. 6. Rim of thick, rather coarse ware, containing small grit. Blackish-buff throughout, encrusted on exterior. Plan No. 78, found on floor outside main ring.
- No. 7. Rim of hard, blackish-coloured ware, containing fine grit. Interior smoothed. Plan No. 45, found on floor on south side of Recumbent Stone at 4 feet 5 inches below datum.
- No. 8. Rim of hard, fairly fine ware, containing fine grit. Black in colour, smoothed on interior. Plan No. 20, found in disturbed area at 5 feet 5 inches below datum.
- No. 9. Rim of thick, coarse ware, containing small grit. Buff paste, reddish interior. Plan No. 99, found in trench.
- No. 10. Rim of fairly hard ware, containing fine grit. Blackish-buff in colour. Plan No. 33, found in disturbed area at 6 feet 6 inches below datum.

- No. 11. Rim of thin, moderately fine ware, containing fine grit. Red in colour. Plan No. 102, found in trench.
- No. 12. Rim of fairly hard ware, containing fine grit. Exterior red in colour, interior buff, slipped and smoothed. Plan No. 40, found on floor at 6 feet 4 inches below datum.
- No. 13. Rim of hard, thin ware, containing fine grit. Blackish-buff in colour, red exterior. Exterior smoothed, interior slipped and smoothed. Plan No. 46, found on floor on south side of Recumbent Stone at 4 feet 10 inches below datum.
- No. 14. Rim of dark, buff-coloured ware, containing small and large grit. Interior slipped and smoothed. Plan No. 60, found on floor at 6 feet 8 inches below datum.
- No. 15. Rim of fairly hard ware, containing fine grit. Reddish-buff interior, blackish-buff exterior. The ware has been smoothed. Plan No. 61, found in disturbed area at 6 feet 8 inches below datum.

Restored and Partly Restored Vessels (see fig. 10).

- No. 1. Plan No. 195. See Type 2, No. 5, for description. Height, $8\frac{3}{8}$ inches; diameter, $7\frac{5}{8}$ inches; diameter of base, $4\frac{7}{8}$ inches.
- No. 2. Plan No. 159. See Type 1, No. 9, for description. Height, $6\frac{1}{2}$ inches; diameter, $6\frac{1}{2}$ inches; diameter of base, $4\frac{1}{8}$ inches.
- No. 3. Plan No. 233. See Type 4, No. 1, for description. Height (approx.), $7\frac{1}{2}$ inches; diameter, $6\frac{1}{2}$ inches; diameter of base, $4\frac{5}{8}$ inches.
- No. 4. Plan No. 171. See Type 3, No. 7, for description. Diameter, 6 inches.
- No. 5. Plan No. 198. See Type 2, No. 1, for description. Diameter, 9 inches.
- No. 6. Plan No. 176. See Type 3, No. 3, for description. Diameter, $6\frac{7}{8}$ inches.
- No. 7. Plan Nos. 171, 185, 190, 204. See Miscellaneous Rims, No. 5, for description. Diameter, 5 inches.
- No. 8. Base of coarse, rough, porous ware, containing large grit, and some pebbles. Buff in colour. Shows considerable finger-markings round base. Plan No. 207, found in Centre Pit at 7 feet 3 inches below datum.

REPORT UPON THE SKELETAL REMAINS FROM THE STONE
CIRCLE AT LOANHEAD OF DAVIOT.

By Professor ALEXANDER LOW, M.A., M.D.

Centre Pit.—Many fragments of cremated bone, coated with the very adherent debris of charcoal: the pieces of bone seem to have been very thoroughly cremated, and have almost a porcelain-like appearance: in this respect they differ from the cremated bones from the Cist. After cleaning and drying, the total weight of bone is approximately 5 lbs. Amongst the pieces can be recognised human arm and forearm bones, head of thigh bone, head of leg bone, ribs, bodies of vertebræ, including the odontoid process of a 2nd cervical vertebra. Many pieces of flat bones of skull—up to $1\frac{1}{2}$ inches by 1 inch—among which can be identified as human, parietal, temporal, occipital, upper jaw, and small piece of orbital margin. Whilst most of those pieces of skull are those of adults, there are some 50 pieces of skull bones of children, perhaps from 2 to 4 years of age.

Cist.—Cremated bones consisting of many splintered pieces of long bones, varying in size up to $1\frac{1}{2}$ inches in length—includes a piece of the articular surface of a human humerus; also some 50 pieces of flat bones of skull, amongst them human parietal, occipital, and temporal.

Secondary Floor (Disturbed Area).—Cremated bone consisting of about 70 pieces of long bones, $\frac{1}{2}$ to $1\frac{1}{2}$ inches in length; also 20 pieces of flat bones of skull from about $\frac{1}{2}$ an inch square to $1\frac{1}{4}$ inch; amongst them are pieces of human parietal.

REPORT UPON THE CHARCOAL.

By E. V. LAING, M.A., D.Sc.

Sample 1.—Large pieces selected from the charcoal submitted: all are exclusively Willow.

Sample 2.—In this sample there is undoubtedly a mixture, and both Hazel and Willow are represented.

Both the above samples are from the Centre Pit.

PART II.

THE STANDING STONES OF CULLERLIE, ECHT.

The site upon which this stone circle stands is both interesting and peculiar. Unlike most stone circles, which usually stand upon elevated ground, the Standing Stones of Cullerlie are situated upon low-lying land, surrounded on nearly all sides by rising ground. The circle is within $1\frac{1}{2}$ miles of the Loch of Skene and $\frac{1}{4}$ mile of the Leuchar Moss; and



Fig. 1. Stone Circle at Cullerlie, Aberdeenshire.

even to-day it is still surrounded by swamps, local fuel being obtained by casting peats in a bog to the west, and also in the Leuchar Moss mentioned above. However, the ground slopes away very gently from the site on all sides, and since the circle itself is built upon a bed of gravel, it is probable that this was once the one dry spot in an otherwise boggy district. The site may have been approached from the south-east, where the land is of a more or less uniform level and dry, and upon which stands the farm of Standing Stones. Continuing in the same direction, at about 200 yards distant from the circle, the ground suddenly rises from 265 feet above Ordnance datum (the level at the farm) to 322 feet

at Hill of Eddieston. On top of this high ground is a single Standing Stone less than 4 feet in height and similar in shape to those of the circle. It is unrecorded on the 6-inch Ordnance Map, and, being still in a south-easterly direction, might have served to mark the way of approach to the stone circle hidden below.

The situation is roughly $3\frac{1}{2}$ miles east of Echt and 10 miles from Aberdeen. The circle consists of eight stones situated round the circumference of a circle of 32 feet diameter. The whole aspect of the monument is in marked contrast to that at Loanhead: not only does it lack the Recumbent Stone, but the monoliths, instead of being flat-faced and shaped, are either rounded (perhaps naturally) or angular. They appear like rough boulders, but their shape is, to a certain extent, intentional, as we shall see later. Again, in contrast to the Recumbent Stone type, the highest monolith is on the north side: it is just 6 feet in height above the level of the floor of the circle, whilst the smallest is only 3 feet 7 inches in height above the same level.

The circle was overgrown with whin bushes when Coles misnamed it,¹ and nothing but a few stones of the inner circles could be seen, due to the site having been used as a dumping-place for field stones.² In 1820, however, the surrounding land had not as yet been cultivated: it was still moorland, from which turf was wont to be cut, and was even denominated a Moss.³ When James Logan wrote of the "Druidical Circle at Leuchar" (as he calls it) in 1820, it was still possible to see the whole structure of seven of the small inner ring cairns,⁴ although the eighth had apparently been destroyed before this time. Continuing, Logan says: "The small circles contained in the larger present a curious singularity; and it is also remarkable that, at a short distance to the south-west, are nine others of similar dimensions." Just what these "nine others of similar dimension" were is hard to state; no trace whatever of them remains. Wilson, copying Logan's statement, makes similar observations.⁵ No further record of the monument is extant; so that it is unknown at what period it was so very carefully and thoroughly howked and robbed; the howking was neither indiscriminate nor untidy, so that it was probably accomplished by someone who had some notion of what he was about. This must have occurred prior to the tilling of

¹ F. R. Coles, "Report on Stone Circles in the North-East of Scotland," *Proc. Soc. Ant. Scot.*, vol. xxxv. p. 187.

² Mr William Hogg, tenant of Standing Stones, informed me that both he and his father before him had dumped field stones here.

³ J. Logan, *Archæologia*, vol. xxii. p. 410.

⁴ *Ibid.*

⁵ *Prehistoric Annals of Scotland*, p. 162.

the land, and the use of the site as a depository for stones upwards of ninety years ago. The only inner ring cairn that escaped notice was No. 2.¹ Some of the ring stones of the cairns on the north-east side have been torn out, but one feels that the "excavators" were not responsible for this, for, although they were content merely to rob the monument of its contents, they carefully, though unskilfully, replaced the stones they had removed.

Although the circle is small, it must be unique: none other, containing so many small ring cairns, is known to exist. Apart from these, its several other features are alike of unique interest, and it is just a pity that one has to report that, with the exception of one minute potsherd and three small pieces of worked flint, no relics were recovered.

THE FLOOR.

Not the least interesting feature of the circle is its floor. The builders had apparently levelled the site before erecting the stones, since the floor is fairly level, whereas the underlying gravel bed is rather the reverse. We thus find that in places the floor is only $\frac{1}{2}$ inch above the gravel, and in other sectors, notably on the north-east side, there was a depth of 6 inches of earth between floor and gravel. The floor itself was easily distinguished; it was a shiny, greasy black when newly exposed, turning to a dark brick-red when scraped. It had thus obviously been burnt; and that burning had taken place by the lighting of numerous piles of willow branches. This is inferred from the fact that, whereas the whole floor had been subjected to heat, that heat had been considerably more intense in small patches throughout the whole area. The extent to which this burning took place is marked on the Plan, Pl. IV., by the dotted outline; and it will be observed that it hardly extends beyond the circumference of the circle. This rite of purification, or consecration, of the site by fire had taken place after the erection of the eight monoliths forming the main ring, since, not only had the monoliths themselves every appearance of having been scorched by fire (suggested by the patches of pink and grey on the lower surfaces, colours produced on "bastard" granite by the application of heat), but around the bases of Nos. 3, 4, and 5 at floor level were quantities of grey ash and disintegrated, burnt stone. At this time the eight small ring cairns were not in position, for in every case they were found to have been built upon this burnt floor. Whether the same is true of the eight small

¹ The ring cairns are numbered as follows: Central ring cairn is No. 1; that to immediate left is No. 2; thereafter numbers advance in an anticlockwise direction. Monolith No. 1 is next Cairn No. 2, and numbers advance in same direction as above.

rings themselves is uncertain, owing to their having been sunk to depths of 2 to 5 inches into the soil. However, this much can be said: many of the stones of the small rings, like the monoliths, showed signs of having been subjected to considerable heat.

Upon the floor was a layer of fairly hard earth, which probably represents the accumulations of centuries. It was 6 inches deep, and at various depths within it, and outside the small rings, numerous stones were found lying in disorder. Some were only 1 inch above the level of the floor, whilst others were found at varying and higher levels. They obviously represented cairn stones which had been either thrown out or had fallen out in the course of time. The finding of some at so low a level seems to imply that the monument commenced to fall to pieces at an early date in its history.

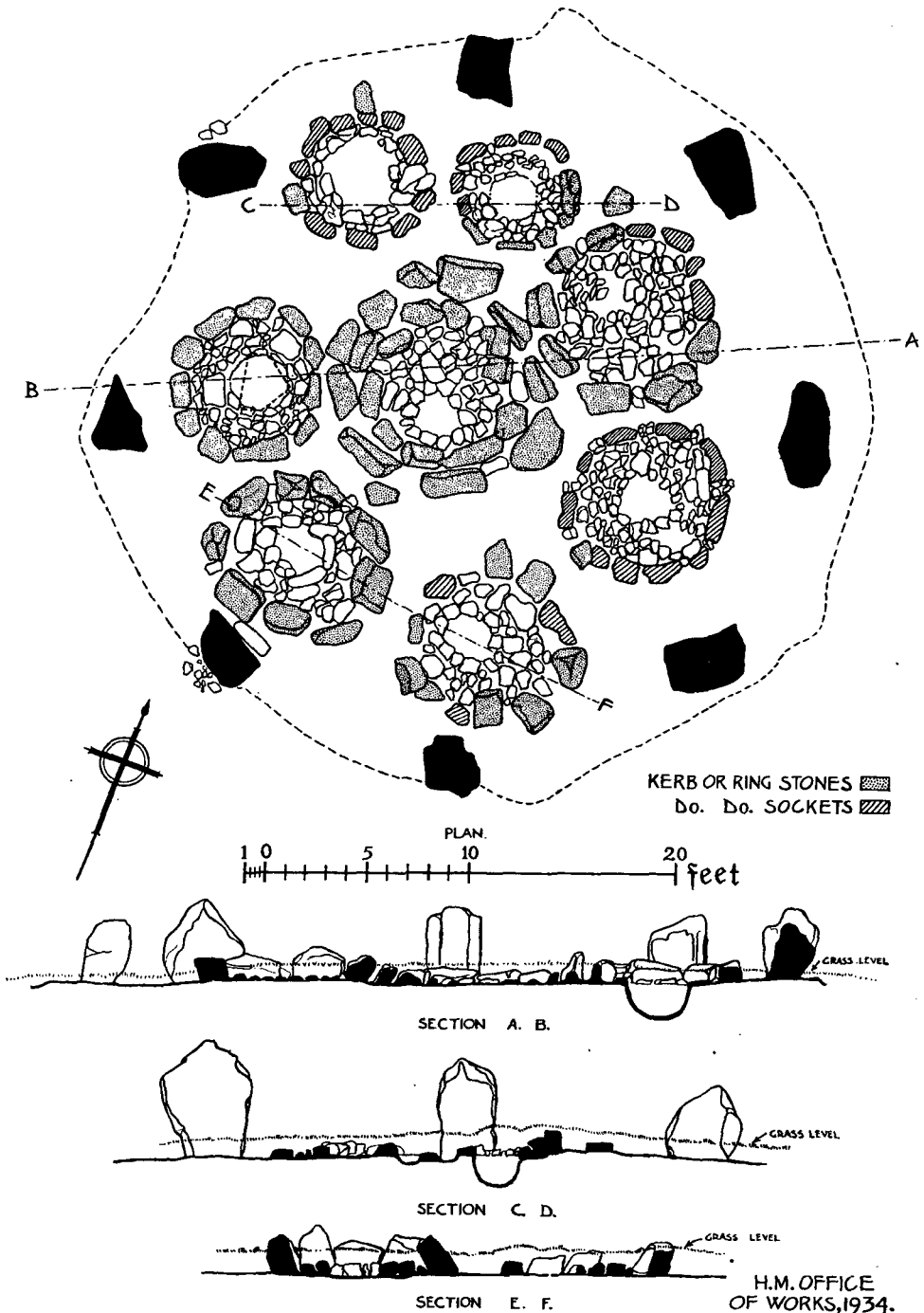
SMALL RING CAIRNS.

There are eight small cairns enclosed within circles, or rings of stones, some of the last attaining a height of two feet. The central cairn, which is the largest, having a diameter of nearly 11 feet, is surrounded by a double concentric ring of stones, whilst the remaining seven cairns, all of smaller dimensions (No. 7 being only 6 feet in diameter), are surrounded by single rings. The central cairn is obviously the most important of the eight, both from its size and position and from being surrounded by a double ring of stones.

There are several interesting numerical coincidences. Not only are there eight monoliths to the main ring, and eight cairns within that ring, but each of the cairns, with one exception, is surrounded by a small ring containing eleven stones; the exception is No. 3, which possesses nine stones. The central double, concentric ring has eleven stones to each circle; and even where sockets alone remain (marked by the shaded areas on the Plan) they are eleven in number.

Central Double Ring Cairn, No. 1.—The double concentric ring presented rather an irregular appearance: not only were the stones badly set up, but they varied greatly in size and shape. The outer of the two rings possessed the largest stones, the average height being 23 inches, and these completely dwarfed the inner of the two rings, where the average height of the stones was less than 1 foot. The enclosed cairn had been extensively disturbed. There was no apparent internal structure, but a roughly circular area devoid of stones on the south side yielded a quantity of charcoal and cremated human remains.

Ring Cairn, No. 2.—This was the sole undisturbed example, and may



H.M. OFFICE OF WORKS, 1934.

Plan and Sections of Stone Circle at Cullerlie, Echt.
H. E. KILBRIDE-JONES.

PLATE IV.
[To face page 218.

therefore be taken as being typical of the former appearance of the remaining seven cairns. The surrounding ring of eleven stones was the most uniform within the main ring, all being more or less of an even height of 13 inches. The ring enclosed a cairn which rose slightly above this level in the centre. Removal of the top stones disclosed a capstone, measuring 30 inches by 26 inches, and roughly triangular in form. It rested upon stones which had been carefully laid to form a paved floor, and amongst these stones were two larger flat ones, measuring 18 inches by 14 inches and 19 inches by 16 inches respectively. They were raised, but disclosed nothing of interest. The capstone covered a circular pit, 28 inches in diameter and 21 inches deep, which had been dug out of the natural gravel bed. The sides of the pit were much reddened, and there was charcoal at the bottom to a depth of 10 inches. Some of the charcoal was as large as a closed fist, and amongst it were fragments of calcined human bone. The pit had obviously contained a fire. Upon the charcoal was a layer of "dead" sand, 2 inches to 3 inches deep, and above this, to the level of the paved floor, was black earth. It thus seems that the remains were burnt and buried as they lay.

Ring Cairn, No. 3.—This was the sole ring possessing only nine stones. Most of these were of irregular shape, and of an average height of 23 inches. Three-quarters of the cairn still remained, but there were signs of disorder in the middle. In the centre, and laid upon the burnt floor of the circle, was a cist formed roughly of eight stones: other stones were packed in behind these and the ring. The cist measured 2 feet 8 inches by 1 foot 10 inches and was 10 inches deep. It was filled with dark soil, which contained a quantity of charcoal and some calcined bone.

Ring Cairn, No. 4.—The ring of eleven stones, three of which were missing, was highest on the south side, where the stones were 22 inches high, and it diminished in magnitude towards the north where the stones were only 17 inches high. The ring was considerably disturbed, and not a great deal remained of the cairn, but the lowest stones of the latter were *in situ*. All were lying on the burnt floor of the circle, and towards the west side of the ring some had been arranged in such a way as to form a somewhat irregular cist, measuring 2 feet 4 inches by 1 foot 10 inches, and 7 inches in depth. The cist contained a quantity of charcoal and burnt bone, and, like that of Cairn No. 3, it was orientated approximately east and west.

Ring Cairn, No. 5.—Only one stone, 14 inches high, remained of the ring, but there were ten sockets to show that the total number had originally been eleven. The cairn, which was much disturbed, failed to

disclose any structural feature; but in a clearance near the middle, a quantity of charcoal was found.

Ring Cairn, No. 6.—This cairn lay in hopeless confusion; but scattered amongst the stones were quantities of charcoal and calcined bone, and one minute potsherd was recovered. On the north-eastern side the encircling ring had been torn out, three stones being amissing, and one other was found lying nearby. Some of the remaining ring stones were 24 inches in height.

Ring Cairn, No. 7.—Six of the eleven stones of the ring were amissing, and the average height of those still *in situ* was 15 inches. This was the smallest of the cairns, and remained fairly undisturbed on the south-eastern side. The cairn covered a pit, but no capstone was found. Since the pit had been opened to half its depth, it is impossible to say whether one had formerly existed or not. The pit was 26 inches in diameter and 18 inches in depth. Unlike that of Cairn No. 2, it had not contained a fire, although the bottom of it was full of charcoal, and this charcoal had been covered with a layer of earth in which a quantity of calcined bone was found.

Ring Cairn, No. 8.—Not a single stone of the ring remained in position, but three stones belonging thereto were found nearby. Very little remained of the cairn. There was a large area in the middle full of black earth containing a large amount of ash. The removal of this earth revealed a hard crust-like surface, apparently formed for the most part of hardened ash. It was nearly 1 inch in depth above the level of the floor, and must represent the wood-ash of innumerable fires. No charcoal was recovered, and no cremated bone.

THE MONOLITHS.

It has already been stated that, at a first glance, the monoliths of the main ring appeared to be natural, unshaped boulders. Probably much of their shape was acquired by natural means, but in some cases it is obvious that their form has been acquired artificially, and although they do not conform to the same principles governing the shaping of the monoliths at Loanhead of Daviot, they have nevertheless been fashioned in such a way as to bring the centre of gravity as nearly as possible into a central position. We thus find that most of the monoliths possess a pointed apex: but that apex, in contradistinction to the apices possessed by the monoliths of such circles as those at Castle Fraser, Loanhead, and Old Keig,¹ now resembles an equilateral triangle, the apex of the triangle

¹ See p. 188 of this present report.

being more or less vertically above the centre of the stone, and also vertically above a similarly pointed base. By this expedient the whole weight of the stone is thrown on to the point of the base, which acts as a wedge let into the gravel. These conditions are brought about by the fact that the monoliths stand entirely in a bed of gravel, and, were they not perfectly balanced, subsidence on the side of greatest weight would be the inevitable result. It might be argued that under these conditions a flat base might be preferable: likely enough, such might be the case, but it has to be borne in mind that such a base would provide added difficulties to be overcome in the erection of the monolith, and a pointed base is the result. In any case, a pointed base is very satisfactory, since it provides a greater surface of resistance than would be the case were it flat. Any large monolith shaped like those at Loanhead could hardly be expected to remain upright in a bed of gravel for much longer than a single generation. Such conditions as the above also tend to keep the monoliths small.

Even at Cullerlie, however, disaster has not been entirely avoided. Monolith No. 5 is possessed of an irregularly shaped base, and it lacks a pointed apex. It is plainly an unbalanced stone, and the result is that it has heeled over to an angle of 43°, which is the position in which it now lies. Monoliths Nos. 7 and 8 also possessed rough, irregularly shaped bases, but here extraordinary precautions have been taken to avoid the fate of No. 5. Actually, neither No. 7 nor No. 8 rests upon the gravel bed at all, but instead a foundation of large stones has been prepared for each one, and these stones take the whole weight of the monoliths resting upon them. All this proves that the builders of the circle were well experienced in such matters, and they took some care in the choice of a monolith, and also in its erection to ensure its stability.

The dimensions of the various monoliths are as follows:—

	Height above Floor.		Total Length.		Greatest Thickness.	
	ft.	in.	ft.	in.	ft.	in.
Monolith No. 1	4	1	5	0	2	5
2	4	0	5	0	2	1
3	4	5	0	0	2	4
4	4	4	5	9	2	8
5	3	7	5	9	2	2
6	3	7	5	6	2	6
7	4	5	6	2	3	3
8	5	11	6	8	2	8

The stone circle is said to have once possessed an outlying stone.¹ This stone was supposed to have been an upright block about 5 feet in height, and to have stood on the western side at a distance of 3 or 4 yards from the circumference of the circle.

Subsequent to my departure, the Ancient Monuments Department had an area 20 feet long examined up to a radius of 36 feet from the centre of the circle—a distance of 20 feet from the circumference—on the western side. The former existence of a monolith of the size stated would imply the presence of a crater; but, although the gravel was carefully scraped throughout the above area, none was found. Everywhere the gravel bed remained undisturbed. It is rather a significant fact that Logan's drawing omits such an outlier. If, as Mr Ritchie states, the stone was in existence within living memory, Logan would undoubtedly have included it in his plan. Possibly the stone may have been the last remnant of the "nine others of similar dimensions"—meaning small ring cairns—which are stated by him to have been situated at a short distance to the south-west of the circle. In any case, no monolith of the size stated by Mr Ritchie could have stood on the western side.

REPORT UPON THE SKELETAL REMAINS FROM THE STANDING STONES OF CULLERLIE, ECHT.

By Professor ALEXANDER LOW, M.A., M.D.

Cairn No. 1.—Cremated bone consisting of about 150 fragments of limb bones, varying from about $\frac{1}{2}$ to 1 inch in length. In addition, there are 20 pieces of the flat bones of skull varying in size from $\frac{1}{2}$ an inch square to the largest, 2 inches by $\frac{3}{4}$ inch; among the pieces can be identified human parietal and a small part of left upper jaw.

Cairn No. 2.—Cremated bone consisting of 15 fragments of limb bones, mostly small— $\frac{1}{2}$ to 1 inch in length.

Cairn No. 3.—Cremated bone consisting of 10 fragments of limb bones—from $\frac{1}{2}$ to $1\frac{1}{2}$ inches in length.

Cairn No. 4.—This specimen largely consists of peaty material with a few fragments of cremated bone embedded in it; one fragment is a piece of human parietal bone.

Cairn No. 6.—One packet consists of about 30 very small fragments of cremated bone. The other packet contains some 40 pieces of cremated bone splintered and varying in size from $\frac{1}{2}$ to 1 inch in length.

¹ J. Ritchie, "Notes on Stone Circles in South Aberdeenshire," *Proc. Soc. Ant. Scot.*, vol. liii. p. 66.

REPORT UPON THE CHARCOAL.

By E. V. LAING, M.A., D.Sc.

I have examined the specimens of charcoal, and find them to be as follows:—

Cairn No. 1	.	.	.	Oak (slow grown)
„ „ 2	.	.	.	Hazel
„ „ 3	.	.	.	Oak
„ „ 4	.	.	.	Oak (hard, almost woody)
„ „ 5	.	.	.	Oak
„ „ 7	.	.	.	Oak
Floor of circle	.	.	.	Willow